FEEDSTUFFS

The Weekly Newspaper for the Feed Industry

Volume 33—Number 44 | NOVEMBER 4, 1961 | 1 Year $5, 2 Years $8

FEEDSTUFFS *Features This Week*

TWENTY-FOLD GROWTH—The 20-fold increase in the business volume of an Iowa-based feed firm in 10 years is traced in this article. **Page 18.**

SOYBEANS FOR SWINE—Research on the use of ground, heated, unextracted soybeans for swine is reported on **page 42.**

LITTER COMPARISON—Five litter materials for broilers are compared in this study. **Page 64.**

TURKEY SPECIALISTS—This Iowa elevator firm sells $700,000 worth of turkey feeds per year. **Page 68.**

—REGULAR FEATURES—

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Analysts Say 1962 Feed Supplies to Exceed Need

CHICAGO—A moderate increase in livestock production coupled with larger supplies of feed than needed are prospects for the next 12 months as seen by the feed survey committee of the American Feed Manufacturers Assn. The committee met two days in Chicago to take a look at the year ahead.

Numbers of all classes of livestock and poultry, except dairy cows, sheep and turkeys are expected to increase in 1961-62 compared with 1960-61. At the same time, the calculated livestock-feed balance for the feeding year ahead shows that estimated high protein feed supplies will exceed anticipated feed use by 6%. The excess of grain and by-product supplies is expected to be 41%, the committee predicted.

The 1962 spring crop of pigs will probably be 4% larger, beef cattle numbers will be up 3%, laying hens up 2% and broilers will be up 1%. A 5% reduction in turkeys is expected. Dairy cow numbers will be about the same, but milk production per cow will go up nearly 2%. Grain feeding per cow will be heavier. Some decline in sheep numbers appears probable.

The generally larger numbers of livestock and poultry, at the feeding rates expected for 1961-62, will con-

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New Molasses Definition Approved

By GEORGE L. GATES
Editor of Feedstuffs

WASHINGTON—Feed industry interest at the Association of American Feed Control Officials convention here Oct. 26-28 centered on a change in the definition for cane molasses, problems in labeling pet foods, feed processing definitions and some problems arising from an AAFCO resolution which has the effect of placing some poultry formulas in a mineral feed category.

Most of the discussion concerning specific labeling and definition issues took place at the opening evening session held by the states relations committee. Official action of the association (reported in detail on page 6) included adoption of the new cane molasses definition over pleas of several molasses industry representa-

(Turn to **AAFCO**, page 95)

At Cornell Conference

Scientists, Others Called Upon to Take Broader Look at Animal Research

By ROGER BERGLUND
Feedstuffs Managing Editor

BUFFALO—Scientists and others serving animal agriculture this week were called upon to take a broader look at animal research as well as at today's fast-changing agribusiness.

"Perhaps the greatest challenge for all of us in today's changing picture is to think more broadly in our approach to servicing agriculture than we have in the past," said Dean McNeal, chairman of the board of the American Feed Manufacturers Assn.

Mr. McNeal, who is executive vice president of the Pillsbury Co., Minneapolis, spoke at the annual Cornell Nutrition Conference at the Hotel Statler in Buffalo. The conference, sponsored by Cornell University in cooperation with AFMA, was attend-

(Turn to **CORNELL**, page 8)

Colonial of Alabama Acquired by Purina

ST. LOUIS — The Ralston Purina Co. has agreed to acquire the Colonial Poultry Co. of Alabama, Inc., Albertville, Ala., it has been announced this week by Donald Danforth, Purina board chairman.

The acquisition involves a cash transaction. Terms are retroactive to Sept. 30, 1961.

Principal owners of the Colonial

(Turn to **PURINA**, page 8)

Broiler Market in South Slumps; 10c Prices Are Posted

By Special Correspondent

ATLANTA — The broiler market slumped again this week, just at a time when it looked like slightly better days were ahead. Ten-cent prices were posted in Georgia and North Carolina Nov. 2, a drop of 2¢ from last week's encouraging 12¢. The range in the southeastern producing area last week was 11-13¢.

Slow demand was given as one of the principal reasons. Ready to cooks started slumping in demand early in the week, when prices dropped to 11¢.

In North Carolina, the demand was reported to be slow to fair, and only a few quotations were available. On

(Turn to **BROILERS**, page 95)

Plans to Enter Egg Business Stated By Arkansas Valley

DARDANELLE, ARK.—Arkansas Valley Industries, Inc., a major producer and processor of broilers, has announced that it will enter the commercial egg business on a large scale.

This AVI move comes just after the firm's financial statement for the six-month period ended Sept. 30 showing that the firm lost $191,581 on its integrated poultry operations. The loss came on record sales of 33,085,615 lb. of poultry for about $16,899,444, according to the report. The losses came during a record low-price period for broilers. The average price

(Turn to **AVI**, page 8)

GMI Closes Two Western Plants

PALO ALTO, CAL. — "Disastrous trends in the broiler and turkey industries and diminishing income from feed sales" have led to the planned or actual closing of two General Mills, Inc., feed mills in the west—one at Ogden, Utah, and one at Tacoma, Wash.

Burton W. Roberts, GMI vice presi-

(Turn to **GMI**, page 4)

Pricing Guideline Issued for Grain Certificate Sales

WASHINGTON—The U.S. Department of Agriculture has announced a minimum pricing guideline for sales of Commodity Credit Corp.-owned corn and grain sorghum against certificates issued to producers for diverting feed grain acreage under the 1961 feed grain program.

USDA officials stated that certificate sales will continue to be made

(Turn to **GUIDELINES**, page 94)

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USDA Announcement Doesn't Change Previous Policy

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON—The U.S. Department of Agriculture's announcement of a minimum pricing guideline for feed grain certificate sales (see related story) does not change the department's previous sales policy. This ob-

(Turn to **NO CHANGE**, page 94)

Turkey Order Hearing Dates, Places Announced

WASHINGTON — Dates and locations of five public hearings across the nation on proposed nation-wide marketing orders and agreements for turkeys and turkey hatching eggs—which, if issued, would be the first ever applied on a national basis for an agricultural commodity—were announced this week by Charles S. Murphy, acting secretary of agriculture.

The proposed marketing orders were submitted by the National Turkey Advisory Committee, named by Secretary of Agriculture Orville L. Freeman Oct. 10 at the request of industry representatives to study the turkey market and submit a plan of market stabilization.

The hearings are the next step on the road to possible activation of the proposed marketing orders by the secretary of agriculture. Prerequisites are approval of a workable plan for market stabilization and approval by a two-thirds majority of producers voting in referendum.

Included in the proposed marketing orders and agreements for turkeys and turkey hatching eggs are provisions for market research and development, regulation of grade, size and quality at the handler level, prohibitions on unfair trade practices and supply management.

Hearing dates and places on the proposed orders are as follows:

Nov. 20-22—Richmond, Va., South-

(Turn to **HEARINGS**, page 91)

• • •

Pro-Controls Believe Turkey Vote Will Pass

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON—The feeling here is that proponents of the turkey control proposals are highly optimistic over the outlook for a favorable referendum as required by law to enact such agreements and orders to cover 1962 production.

This is the first attempt to impose marketing orders and agreements on a national scale although such orders and agreements have been operating on regional or state basis for fruits and vegetables and potatoes in the past.

The first exposure of the turkey industry to such operational controls came here recently when a National

(Turn to **VOTE**, page 95)

FEEDSTUFFS®

The Weekly Newspaper for the Feed Industry

Published by THE MILLER PUBLISHING CO.
2501 Wayzata Blvd., Minneapolis, Minn.
Address Mail to: Box 67, Minneapolis 40, Minn.
Telephone FRanklin 4-5200 - All Offices Serviced by Bell System Teletype

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Correspondence regarding subscriptions, changes of address, etc., should be sent to Circulation Manager, Feedstuffs, Box 67, Minneapolis 40, Minn. Single copies 50¢. Subscription rates: One year $5, two years $8, in the U.S., U.S. possessions, Canada and Pan-America. Add $3 a year for postage to other countries. Readers are urged to give prompt notice of change of address and to anticipate future changes by at least three weeks' advance notice. Ask postman for form 22-S. Feedstuffs accepts subscriptions only through its own offices; no subscription solicitors are employed or recognized. Associated publications: The Northwestern Miller, Cropilfo, Farm Store Merchandising, Feedlot and Professional Nursing Home. Second-class postage paid at Minneapolis, Minn.

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Top of the Hopper

THOSE IN INDUSTRY who sincerely oppose marketing orders and agreements for turkeys have but a short time to prepare their arguments for hearings to be held on the subject. The first of the series will be held in Richmond, Va., on Nov. 20.

Some individuals feel that the hearings might be nothing more than a matter of "going though the motions," believing that the momentum already put behind the control move is not likely to be deterred by opponents. At a recent industry meeting in California, for example, some participants felt that Dr. Willard Cochrane, the U.S. Department of Agriculture's chief economic advisor, strongly implied that "you're going to get controls whether you want them or not."

Hearing this report, another USDA official strongly denied that this is the USDA position. He said that the department must obtain evidence at the hearings pointing strongly to a need for government action, and that everyone who has something pertinent to say must be heard. On the basis of evidence presented at the hearings, he said, the hearing examiner then makes his recommendations to the Secretary regarding the next moves.

It would be best if those in industry who wish to present the case against controls did not receive the above comment with too much skepticism. Failure to go on record would certainly provide more steam for the control steamroller—both in regard to turkeys and to broilers.

AN AREA OF QUALITY CONTROL about which the feed industry will be hearing more is uniformity of product—thorough mixing of a feed and then continuation of a proper mix in handling after mixing and in feeding at the farm level. This was pointed out by Bruce Poundstone, secretary of Association of American Feed Control Officials, in a recent talk. Mr. Poundstone posed such questions as: How well do ingredients lend themselves to mixing where particles are randomly distributed? Will they segregate after mixing or remain randomly distributed? He said that an important area of exploration in the near future will be on the extent to which feeds are uniform as they are offered to the animal or bird. With additives in an important role, it is imperative that they be uniformly blended and remain in that condition until time of final use.

Previously, others also have mentioned possible problems of "unmixing" of feeds in handling. In this connection, some have predicted more pelleting to assure uniformity of product. However, even if this is done, they note the necessity to avoid separation in handling after mixing and prior to pelleting.

WHEN IS A "CUTBACK" in production really not a cutback?

This question, with particular reference to current production situations in the broiler and turkey industries, might best be answered allegorically.

Say, for instance, a feed company decides to build a new feed mill to replace an old one so that it can produce more feed more efficiently to meet the demand of expanding feeding operations in its area. The firm figures the new mill should be of a size and design to turn out 200 tons in an eight-hour shift. A mill of this capacity would double the production capacity of the firm's old mill.

When the new mill is completed the company finds that 150 tons a day is enough to meet the initial demand created by its stepped-up sales promotions.

Production at 150 tons a day is 50 tons less than expected eventually, but, also, is 50 tons more than previously produced with the old plant.

Now take the case of a hypothetical broiler firm—again for example—which in September of 1960 marketed [illegible]0,000 birds. Early in the following year this broiler operation planned to be marketing about 200,000 birds in

(Turn to TOP OF THE HOPPER, page 97)

How's Business?

AN EVERY WEEK REVIEW OF FORMULA FEED BUSINESS VOLUME, INCLUDING PRICE, SUPPLY AND DEMAND TRENDS

Most regions in this week's feed business survey reported that volume was improved or continuing at good levels. In many cases, indications were that dealers were taking on additional supplies for the heavier feeding period just ahead. Cooler weather sparked business in some areas.

Feed manufacturers continued to buy their ingredients for nearby needs only. Influencing them was Commodity Credit Corp. selling of substantial amounts of corn and grain sorghums.

It was reported from Delmarva that there is more optimism in the broiler business there, with placements being up. However, broiler feed volume in most regions still remains far below normal.

Hog feeds continue to be in good demand in some regions of the country despite lower hog prices as the fall selling hits a high level.

The wholesale feedstuffs price index advanced 2.2 points to 80.9 this week compared with 72.7 a year earlier. The feed-grain index dropped 1.6 points, reflecting lower corn prices. It was 63.4 this week and 59.4 a year ago.

The hog-corn ratio, based on Chicago prices, was 14.6 this week; it was 15.1 last week and 16.6 the same week a year earlier. (Major market roundup and ingredient quotations appear on pages 92-94.)

Northwest

The questioning of feed manufacturers in the Northwest about the state of their business this week brought a variety of answers. Feed men's evaluations of their business ranged from a frank admission that business was slow to a statement that business had started out slow this week but was picking up and looking better each day.

Hog feeds and laying hen feeds were among the bright spots of the business picture. Dairy feed volume continues to pick up.

Most firms' price lists will be lower.

Northeast

Sales of formula feeds in the western New York area flattened out after the previous week's downturn as consumers continued to ride their recently acquired inventories.

Dairy feed tonnage consisted mostly of mixed feeds, or low protein complete feeds, with consumers ignoring high proteins. Egg mashes were turned over in good volume. Turkey feeds were at a low ebb, but some birds are still on feed for the holiday trade. Broiler feed demand was nil but could revive next month.

In the New England states dairy feed demand accelerated as in-barn feeding increased. Some mixers said egg mashes were slow, but others said mashes, together with other poultry feeds, were their best sellers.

Both layers and broiler replacements are down but hatching eggs moved up 5¢ to 60¢ doz.

Consumer egg prices in New York were mixed, with levels off ¼¢ to up 2¢. In the New England states jumbo-sized eggs rebounded as much as 4¢ doz. Broiler prices in the latter area held steady at 13 to 14¢ lb., with most sales at 14¢.

Running time of formula feed manufacturers in the western New York area averaged 36 hours last week, with some mixers above and below that figure. In the New England states, running time firmed up from 30 hours and a "slow" 40 hours to a full 40-hour week.

Southeast

Formula feed business in the Southeast continues to improve each week. Broiler feed manufacturers' running time is still approximately 70% of normal. Broiler prices declined 1¢ lb., with sales being made from 11¢ to 13¢, f.o.b. the farms, with good growers continuing to operate at a loss.

The drouth in the Southeast has hurt pastures and dairymen, and cattlemen are having to increase their usage of roughages and concentrates. Most of the ranchers are now beginning their fall feeding programs, and there should be a good movement of feeds from now on until spring.

Central States

By and large, demand for commercial mixed feeds is holding up fairly well, due largely to the fact that inventories out in the field had been permitted to dwindle, and replacement business is keeping a fairly steady flow of orders coming from the interior.

Prices are strong as a further reflection of the recent trend reversal in the bean meal price structure, with the latter up $2 to $3.50 per ton for the week.

Broiler production has been definitely cut back and this in turn has been reflected in a smaller demand for that feed. This is the tail-end of the turkey feeding period and this has been mirrored in an appreciable letdown in the call for turkey feeds. Egg mash is holding up well.

However, with the possible exception of cattle feeds which have been lagging to some degree, call for the balance of the list has been on the fair to good side. Recent fall-off in hog prices has apparently made little or no change in the demand for hog feeds.

South Central

October was a good month for the formula feed business. Plants in this area reported excellent sales volume and plant operating time. While the majority of the units held to a five-day production basis, six-day or more operations were not uncommon.

The most marked pickup in sales and shipments occurred in cattle feeds with total deliveries more than replacing the seasonal drop in turkey feed volume. Hog feed business was well maintained in the face of increased fall marketings. Pig and sow feed sales showed a substantial rate of improvement. Poultry feed business was disappointing with both broiler and egg feed output slowing down.

Feed mill officials are concerned that recent increases in formula feed prices might slow down the rate of new orders. Price lists advanced steadily throughout the month and as ingredient prices moved higher again this week another advance is in prospect for week end lists.

Ohio Valley

There is a much stronger demand in the feed business this week.

(Turn to MARKETS, page 97)

Look for the answer first from Peter Hand Research

MEET YOUR 9 FEED SPECIALISTS AT PETER HAND!

Wiley Akins—Vice Pres. and Gen. Mgr.— Was pres. of two important feed mfg. assns. 25 years' management experience in the feed industry.

Dr. R. A. Rasmussen—V.P., Research Director, Animal Div.—Served on faculty of 3 universities. Degrees in biochemistry and nutrition.

Dr. Myron W. Pasvogel—V. P., Dir. Research, Poultry Div.—Exper. in poultry, feed industries. Former Dir. Poultry Science Dept., U. of Ariz.

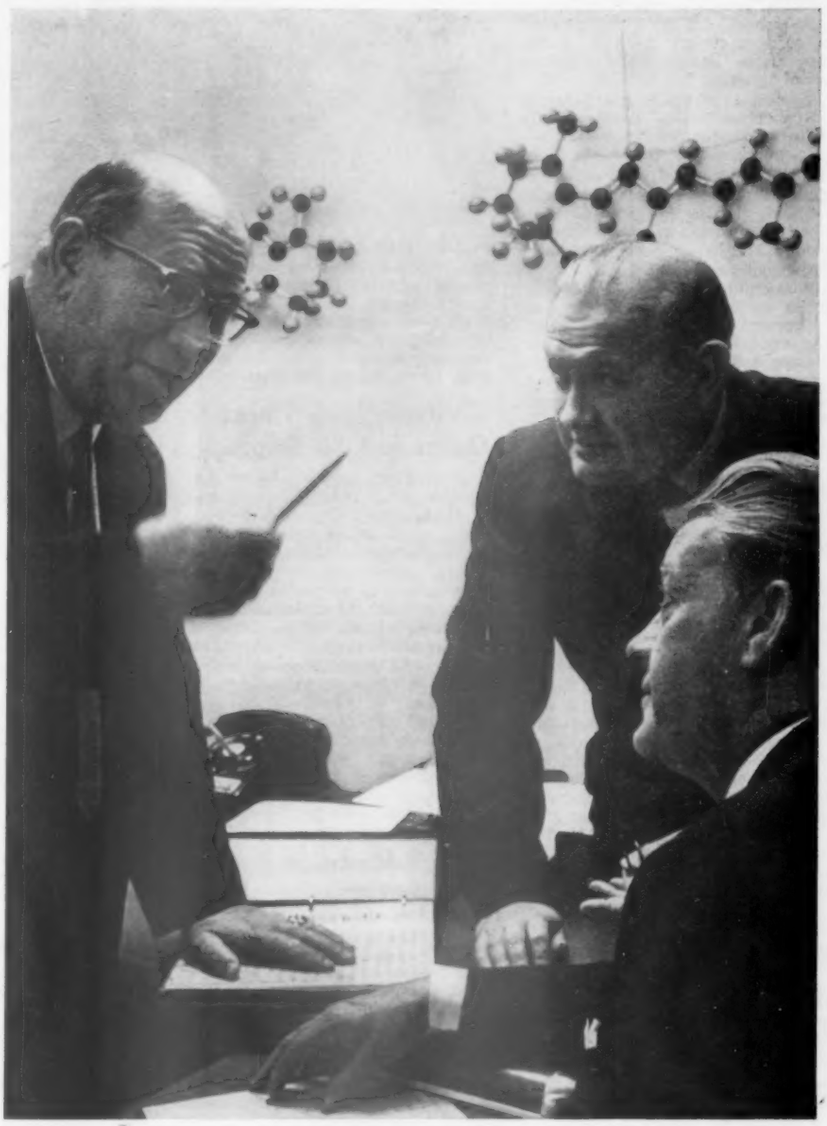
John R. Linsner—Dir. Tech. Services—Grad. U. of Ill. College of Agriculture. More than 12 years' exper. in all phases of feed formulation.

Richard W. Kerley—Coordinator of Sales, Production and Procurement. Degree in general agriculture. 12 years' experience in the feed industry.

Gerald J. Anderson—Tech. Services—M. S. degree in poultry nutrition. Was research technician at U. of Idaho and nutritionist in feed industry.

Dr. Heino Naelapaa—Coord. Spec. and Prod.—Was dir. of res. and nutr. in U.S. firms and abroad. Ph.D. nutr. and physiology, Bonn U., Germany.

Richard W. Kelley—Tech. Services—Was research asst. at U. of Mo. and at Kansas State. Master's degree in animal nutr., U. of Missouri.



Problem solving session—A Peter Hand customer (right) meets with Dr. Rasmussen for evaluation of his formulas and to discuss a palatability problem. Standing by is Harry White, Peter Hand Sales Mgr., with more than 20 years' experience in the feed and pharmaceutical fields.

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USDA Terminates Turkey Purchases

WASHINGTON—The U.S. Department of Agriculture has announced the termination of its turkey purchase program.

USDA announced the termination as it purchased 2,090,000 lb. of frozen, ready-to-cook U.S. Grade A turkeys to be distributed for use in school lunches.

Regarding the purchase program, the department said, "Because of the record crop of turkeys produced this year, purchases by USDA were also at record levels and total almost 60 million lb. All the turkeys purchased are being distributed for use in school lunch programs and will provide about 11 servings per child during the school year to approximately 16 million children."

ments on these bids are to be made

Current producer prices, USDA said, are reflecting the increased purchasing activity by major buying interests, as turkeys are being bought to meet requirements for the coming holidays.

Prices paid for USDA's 2,090,000 lb. purchase ranged from 27.45¢ to 29.19¢ lb., the department said. Total offerings amounted to 5,335,000 lb., and offers were accepted from 14 of 22 firms submitting bids. Ship during the period Nov. 13-26.

Companies to Build British Columbia Mill

ABBOTSFORD, B.C.—W. S. Rogers & Co., Ltd., Ft. Langley, B.C., is combining with Boyd's, Ltd., of Chilliwack, B.C., to build a new automatic feed mill at Abbotsford.

The mill, it is indicated, will be a high capacity operation, using the latest developments and geared to handle bulk feeds in particular.

Molasses, fat and fish solubles will be the liquid ingredients used. There also will be ample storage for grain and concentrates.

The Boyd's mill burned down last April. Abbotsford is between Ft. Langley and Chilliwack.

Mutual Millers, Feed Dealers Assn. Elects

FREDONIA, N.Y.—Mutual Millers & Feed Dealers Assn. board of directors has named new officers for the association for the coming year.

Those elected are: President, Ralph Mosher, Harry Austin Milling Co., South Dayton, N.Y.; vice president, Thomas Abbott, Richardson Milling Co., Hamburg, N.Y., and secretary-treasurer, Virginia C. Mattison, Box 8, Cattaraugus, N.Y.

FEDERAL POULTRY CONTROLS OPPOSED

MADISON, WIS.—A resolution opposing any move toward federal controls over the poultry industry was adopted unanimously at the annual meeting of the Wisconsin Hatcheries Assn. at Madison.

Baxter Newton, head of the poultry and egg section of the Wisconsin Department of Agriculture, told the meeting that quantities of broilers still being shipped into Wisconsin from southern states have resulted in the closing of some state processing plants.

Paul Radtke, Appleton, who was elected president of the association and was named delegate to the national hatchery organization convention, told the 110 delegates that the number of hatcheries in Wisconsin has declined to less than 100. He said that, while the price of chicks has been maintained, a lower volume of business because of low egg and broiler prices has hurt the hatchery industry.

PLANT DAMAGED—A portion of the damage suffered when a dust explosion occurred in the grain elevator of Central Soya's Decatur, Ind., plant Nov. 1 is shown here. Sections of corrugated iron at the top of the receiving house and on the gallery were blown out by the blast.

Central Soya Plant Damaged In Explosion

DECATUR, IND.—A dust explosion occurred in the grain elevator of Central Soya's plant here Nov. 1. Sections of corrugated iron at the top of the receiving house and on the gallery were blown out by the blast.

Seventeen men were on duty in the elevator when the explosion occurred. Ten were injured, but none critically. Of the seven originally hospitalized, three have been released and the others were reported making good progress.

Receipt of truck grain and soybeans was suspended the day of the blast, but was resumed the following day. All other operations, including processing and feed manufacturing, continued without interruption.

Feed Research To Be Presented

PUYALLUP, WASH.—New research developments in feeds and feeding will be presented to Washington's feed mixers and dealers Nov. 13-14 in Mt. Vernon where the 14th annual Washington Animal Industry Conference will be held. Sponsoring the event are Washington State University and the Washington State Feed Assn. Sessions will be at Mt. Vernon's Skagit Valley College.

Special guest speaker, according to Dr. Lawrence R. Berg, Washington State University poultry scientist and conference chairman, will be Dr. A. J. Wood, animal scientist, University of British Columbia, Vancouver, B.C., Canada. Dr. Wood will review research on feed, management and genes in relation to meat quality, and the growth and development of animals.

WSU research slated for major attention at the conference includes use and value of various hormones in animal agriculture; response of cows to high level of grain feeding; effect of forage testing on use of concentrates; recent advances in beef cattle feeding; influence of pelleting on energy content of feed, and nutrient requirements of poultry.

Ten-minute reports on eight additional WSU research projects will also be made. Topics of some of the research briefs: Vitamin D and egg production; effect of high levels of vitamin A on egg yolk color, and effect on hatchability of dipping turkey eggs in antibiotic solution.

WSU researchers slated to participate in the annual session include Drs. James McGinnis and Leo S. Jensen, poultry scientists; Dr. I. A. Dyer, animal scientist; Drs. R. E. Erb and T. H. Blosser, dairy scientists, and Dr. R. R. Chalquest, veterinary scientist, all of Pullman, and Dr. L. R. Berg and Gordon E. Bearse, poultry scientists, Puyallup.

FEED

(Continued from page 1)

sume nearly 120 million tons of grains and low protein by-products and 17 million tons of high protein feeds, a total of about 137 million tons.

Hog Numbers to Increase — The 1961 fall pig crop is estimated to be 42,500,000 head, 3% greater than the pig crop of the preceding fall.

It is estimated that approximately 52,568,000 pigs will be produced in the spring of 1962, which is 4% more than the 50,456,000 produced in the spring of 1961.

It is expected that the average slaughter weight of all hogs marketed (including sows) in the 1961-62 feeding year will be 237 lb., which is the same as last year's (1960-61) average.

More Laying Hens, More Broilers, Less Turkeys—The average number of laying hens for the next 12 months will be approximately 297 million, a 2% increase from the previous year. The increase is expected due to relatively favorable egg prices during 1961.

The number of chickens raised for laying flock replacements, during the calendar year 1962, is expected to increase by 3% to a total of 356 million.

Commercial broiler production for the calendar year 1962 is expected to increase 1% to a total of 2 billion.

Based upon previous price and supply relationships, it is predicted that 102 million turkeys will be raised during 1962. This represents a 5% decrease from 1961.

Dairy Cow Numbers Steady, Production Trend Upward—The number of cows to be milked in 1962 is expected to be 17,400,000, approximately the same as 1961.

The number of heifers 1-2 years, and the number of heifer calves under one year, are both expected to increase about 1% over 1961.

Total milk production of 126.8 billion pounds is an increase of 1½% over 1961, and is based upon predicted heavier grain feeding.

Roughage is plentiful in most sections. Concentrates are abundant and available at favorable price ratios. It is estimated that the feeding rate will be 2,450 lb. of total concentrates per cow.

Beef Cattle Numbers Still Increasing—Beef cattle numbers are expected to increase again in 1962, probably by about 3%. Fed cattle slaughter is expected to increase by 4%. Fourteen million of the 27 million total slaughtered will be grain fed.

Sheep Numbers Decline—The total number of sheep and lambs is expected to decline about 3%. Depressed prices and localized poor range conditions were responsible for a sharp increase in horse and mule numbers. The result will be a decline in the 1962 lamb crop and in numbers of lambs fed.

Horse Numbers Up Slightly—The popularity of pleasure horses in the U.S. will probably result in a slight increase in horses and mule numbers.

Feed Supplies Continue Large — Feed supplies in the nation continue to be large. Despite an 18% reduction in acreage, 1961 production of corn for grain is only 9% smaller than the 1960 crop. Oats and barley crops are smaller. With a 29% cut in sorghum grain acreage, the 1961 crop is 21% smaller. But stocks of old crop corn and sorghum grain Oct. 1, 1961, were at record high levels for the date.

Estimated at 710 million bushels of soybeans Oct. 1, the 1961 crop is 27% above last year's and 22% above the previous record of 1958. Cottonseed production is about unchanged, but the flaxseed crop is 30% smaller.

The 187 million tons of grains, oilseed meals and other concentrates available for feed in the next 12 months compare with 149 million tons fed last year. Supplies of high protein feeds exceed last year's use by 9%, grains by 27%.

Availability of soybeans for crushing, and corn and sorghum grain is influenced by higher price supports for 1961 crops than a year earlier.

Hay production is somewhat smaller than the large 1960 crop, but still above average. Pasture conditions, except for the northern plains, were reported to be favorable.

The feed survey committee is comprised of 24 college and experiment station men representing all areas of the U.S. Included are economists, personnel from dairy, poultry and animal husbandry departments, as well as deans of colleges and the director of an experiment station. This was the 20th meeting of the committee sponsored by AFMA.

Members are: Dr. W. H. Hale, University of Arizona; Dr. E. L. Stephenson, University of Arkansas; Dr. F. W. Hill, University of California; Dr. D. E. Becker and Dr. A. L. Neumann, University of Illinois; W. G. Zmolek, Iowa State University; Dr. G. H. Beck, Kansas State University; Dr. D. M. Seath, University of Kentucky; Dr. C. W. Upp, Louisiana State University; Dr. R. F. Davis, University of Maryland; Dr. J. N. Ferris, Michigan State University.

Dr. D. F. Fienup, University of Minnesota; Dr. E. R. Kiehl, University of Missouri; Dr. L. C. Cunningham and Dr. J. I. Miller, Cornell University; Dr. R. M. Kottman and Dr. H. S. Teague, Ohio State University; Dr. L. S. Pope, Oklahoma State University; Dr. B. D. Barnett, Clemson Agricultural College, South Carolina; Dr. R. C. Wahlstrom, South Dakota State College; Dr. J. H. Quisenberry, Texas A&M College; D. C. Henderson, University of Vermont; Dr. T. H. Blosser, Washington State University, and Dr. R. P. Niedermeier, University of Wisconsin.

GMI

(Continued from page 1)

dent and general manager for GMI's Sperry Operations now headquartered at Palo Alto, observed that a major factor in the curtailment decision was the downward trend in broiler and turkey prices.

"The result is a diminishing of feed sales income to a point where it has a less than profitable relationship with production costs," he said. Mr. Roberts described the closing of the production facilities as "a necessary business adjustment."

The GMI feed mill at Tacoma is rated at 110 tons in eight hours and the Ogden plant at 88 tons.

GMI officials said the Tacoma plant had been closed and it is planned that the Ogden mill will be closed early in January.

V. G. Moen, district coordinator, said the change in operation at Ogden will not affect the flour milling activity of GMI's Sperry Operation in Ogden. He also noted that the Nampa, Idaho, feed mill will not be affected by the change in feed operations.

These feed operation changes, according to Mr. Roberts, affect only a part of total production, sales and administrative operations. He said the areas served by the mills are dependent upon for much of GMI's raw materials and a commensurate proportion of total sales revenue.

Palo Alto is now the headquarters for the entire western division operation of General Mills. Headquarters of Sperry Operations and all San Francisco-based operations have been moved from San Francisco to Palo Alto. General Mills has taken a long-term lease on space in the Stanford-Administrative Professional Center, adjacent to the campus of Stanford University.

General Mills officials said the company's northern California district sales office will remain at Oakland, Cal.

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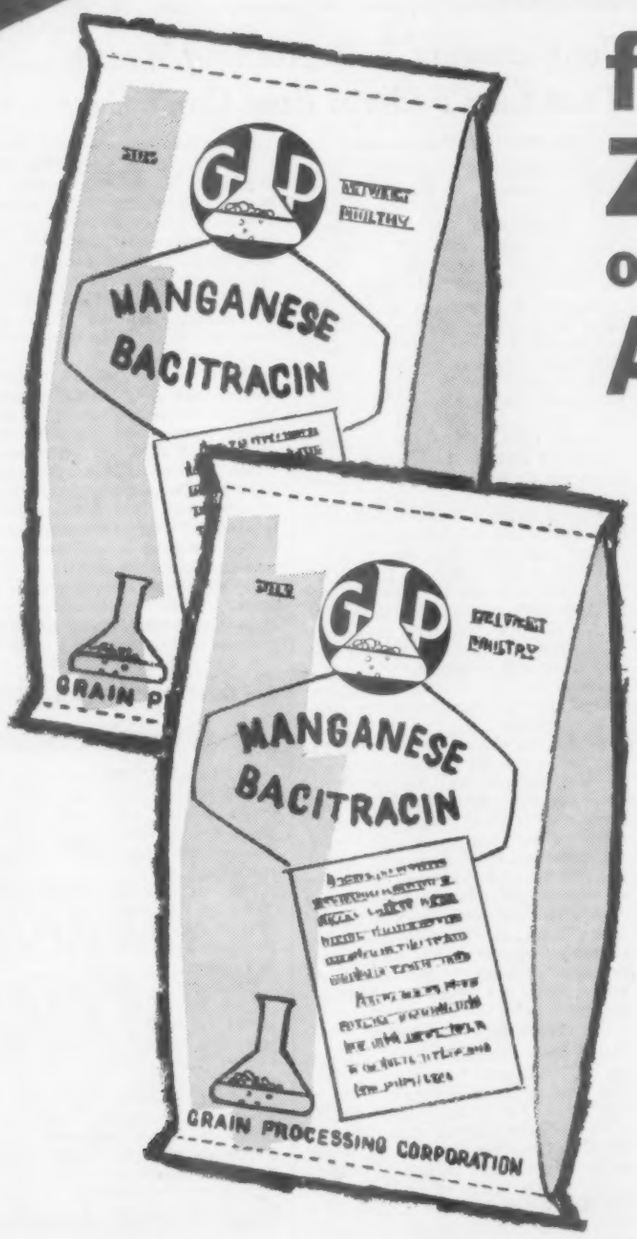
for use with Zoalene or Amprolium



MANGANESE BACITRACIN — the *selective* antibiotic supplement that destroys harmful bacteria without harming helpful organisms — has been fully cleared by the Food and Drug Administration for use in feeds containing either Zoalene or Amprolium.

MANGANESE BACITRACIN may be used with these new Coccidiostats in poultry feeds at a range of 4 to 50 grams of Manganese Bacitracin per ton of feed. It may be used in swine feeds at 10 to 50 grams per ton.

MANGANESE BACITRACIN has been proved by test to be as stable as any similar antibiotic offered to the feed industry. Results also show greater growth response and highly improved feed efficiency. And—it's economical.

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Feed Control Officials Make Definition Changes

WASHINGTON—A number of changes in tentative and official definitions of feed ingredients as well as resolutions based on committee reports were approved at the final session of the Association of American Feed Control Officials annual convention here Oct. 28. Action was accomplished through acceptance of the organization's executive committee report, in which the various actions were listed. (Also see story on page 1.)

It is suggested that feed men particularly concerned with such definitions and actions study the following reproduction of the executive committee report and note changes, where they apply, in the official 1961 AAFCO yearbook.

Constitution and Bylaws

The report of the committee was accepted and the executive committee recommends that the Constitution and bylaws committee undertake a review as recommended to determine and delineate more specifically the duties and authority of the officers and the executive committee and any other matters that they consider meriting such attention.

Medicated Feed Labeling

The executive committee accepts the report of the medicated feed labeling committee and endorses the proposal which reads as follows:

"A new policy in which the antibiotics will be expressed as 'grams per pound' in all products which are to be diluted before feeding and as 'grams per ton' in all products which are to be fed without further mixing with feed; the term 'milligrams per pound' will be permitted on the label only in those cases where a dosage is given as 'milligrams per day' in the feeding directions."

And that the above be incorporated in the appropriate place in the section of the annual publication entitled, "Recommendations for Registration and Preparing of Labels for Medicated Feeds." The entire report will be duplicated by the secretary for distribution to members of the association.

Uniform Feed Bill and Regulations

The executive committee accepts this report and recommends that the following proposal appear in the appropriate sections:

In Sec. 7, Adulteration, add new subparagraph (e) "If it contains viable weed seeds in amounts exceeding the limits which the (insert title of appropriate official) shall establish by rule or regulation."

Pet Foods Committee

The executive committee accepts the report of the pet food committee and in line with its recommendations recommends the following:

1. That a committee be appointed to consider the advisability and practicability of retaining legal counsel for advisory purposes in regard to all matters pertaining to the association;

2. That the proposal with respect to clarification of the terms "brand" and "product name" be referred to the editorial committee, and that this committee develop a recommendation in cooperation with such other committees of the association as may be interested for our next annual meeting. The executive committee urges that all members of the association provide examples of possible inconsistencies to the editorial committee;

3. The executive committee approves the recommendation of the pet food committee pertaining to Joint Resolutions Numbers 1, 2 and 3, which read as follows:

"1. Resolved that the names of pet food ingredients, in the statement of ingredients, shall be listed in the order of descending preponderance, the ingredient present in greatest proportion by weight being listed first.

"2. Resolved that any flavor designation on label of a pet food shall not be used unless the designated flavor is detectable by qualified individuals, or is one the presence of which provides a characteristic distinguishable by the pet

"3. Resolved that any flavor designation on a pet food label must either conform to the name of its source as shown in the ingredient statement or the ingredient statement shall show the source of the flavor."

It is further recommended that proposed Joint Resolution No. 28 be referred for discussion to the association at its closed session.

4. That the following resolutions be adopted:

When a meat or meat byproduct ingredient or a combination of such components constitutes 95% or more of the total weight of all ingredients of a mixture; the name or names of such ingredient(s) may form a part of the product name; provided, the names of all other ingredients in the mixture are printed on the label immediately following the name of the product.

5. The executive committee endorses the recommendation on labeling procedure involving the term "gravy" or "sauce," as follows:

Proposed labeling procedure: When gravy or sauce is declared on the label, the term gravy or sauce must appear in the statement of ingredients with its components listed immediately following in parentheses.

6. That the proposed definition of expanded pet food be adopted and included in the official publications along with the other terms suggested by the investigator on physical form of feeds.

The executive committee commends to the incoming executive committee of the association the recommendation of the pet food committee with regard to expansion of the industry representation on the advisory pet food committee.

The executive committee adopted the general policy to the effect that when no reports were made by the investigator that no recognition is given in this report.

Animal Products

The executive committee accepts the report of the investigator and recommends that the tentative definition, T-3, Poultry Byproduct Meal, be adopted as official.

It further recommends that definition 19, "Hydrolyzed Poultry Feathers," be deleted.

It further recommends the adoption of the following deposition as tentative:

(Turn to CONTROL, page 96)

CONTROLS WOULDN'T WORK, PROCESSOR SAYS

RICHMOND, VA.—A Virginia turkey processor says that he does not believe the poultry industry could be effectively controlled by the government.

Steve Chissick, Cavalier Poultry Corp., Harrisonburg, speaking at the Virginia Turkey Assn. annual meeting during the Virginia Poultry Federation convention, said his experience with wartime controls in the poultry industry has convinced him that the poultry industry, because of its many ramifications, cannot be controlled by any government decrees or orders.

"But, there is no question in my mind that some corrective action must be taken to stave off mass bankruptcy in our industry," he said.

Swine Industry 2-Day Conference Set for St. Louis

ST. LOUIS, MO.—Representatives of all segments of the swine industry will gather in St. Louis Nov. 9-10 for the fourth National Swine Industry Conference, planned for the Statler Hilton Hotel. Conference theme is "Progress—Past and Future."

The conference is set up to appraise industry changes, and to improve the efficiency of the swine and pork industry, thereby improving its economic position and enabling it to better fulfill its responsibility to the consuming public. Those attending will hear speakers on a variety of subjects, and will participate in workshop groups.

There will be three speakers at the 9:30 a.m. opening session Nov. 9. Dr. J. C. Hiller, Oklahoma State University, will outline progress made by the swine industry; Dr. F. J. Mulhern of the U.S. Department of Agriculture will speak on the topic, "Let's Move on Hog Cholera Eradication," and Dr. Cliff Cox of Armour & Co., Chicago, will speak on "How Can We Improve the Demand for Pork?"

At the noon luncheon, Bernard Ebbing of the Rath Packing Co., Waterloo, Iowa, will speak on "Building Pride in the Swine Industry," and Dr. Herrell DeGraff, Cornell University, will speak on "The Protein Challenge of the 60's."

A speech at the opening session Nov. 10 will be "Decrease Losses—Increase Profits," by Harvey Dastrup of Livestock Conservation, Inc.

Ten workshops are planned, and those attending will meet in workshop groups the afternoon of the first day, and report on the group discussion the following day. Workshop topics include: How Can We Improve the Demand for Pork? Breeding and Reproduction, Artificial Insemination, Educational Needs of Swine Producers, Hog Cholera Eradication, Marketing of Live Hogs, Swine Brucellosis, Feeder Pig Production, A Swine Disease Prevention Program and Equipment and Manure Handling.

Among the 29 sponsors are the American Feed Manufacturers Assn., the Animal Health Institute and the National Feed Ingredients Assn.

CONGRESSMAN SPEAKS—Speaking in opposition to government interference in agriculture at a meeting of the Omaha Feed Club was Nebraska Congressman Ralph Beermann, center. With Rep. Beermann in this photo are Max Mason, left, president of the club, and Lloyd Larson, executive vice president of the Midwest Feed Manufacturers Assn., which co-sponsored the meeting. Mr. Larson introduced the speaker.

Congressman Says Nothing Wrong That Less Federal Fuss Can't Cure

By Special Correspondent

OMAHA—There is nothing wrong with agriculture in the U.S. today that can't be cured by less government interference, Rep. Ralph Beermann (R.-Neb.) told 100 members of the Omaha Feed Club in a meeting recently at the Town House.

But the day when a farmer can plant what he wants, when he wants and market how he wants may be a long time in coming, he said.

"A steadily growing band of Congressional conservatives" may hold the solution, he said. But they face an uphill fight to oust "an organized philosophy dedicated deeper than religion to making us all communist and socialist."

Several times in his 45-minute talk, Rep. Beermann pointed out that the present administration, especially below "the appointive rank (you can't vote them in or out of office), is shot through with men of liberal persuasion. And these men write the bills."

To erase any doubts as to his stand, Mr. Beermann declared, "Nobody is going to change my vote to a liberal vote if it is not right—and, by golly, it is not right."

He singled out several administration higher-ups for special mention:

—Secretary of Agriculture Orville Freeman, whom he describes as "very personable but he doesn't understand the birds and bees or, for that matter, cows and bulls, sows and boars."

—Dr. Willard Cochrane, economic advisor to Mr. Freeman, "who can't plow a straight row, and who said at Ames, Iowa, in 1958, 'We are going to have livestock control by the government.' Frankly," Mr. Beermann added, "I'm not ready for dictatorship."

"100% Grab for Power"

Rep. Beermann said he is witnessing "a 100% grab for power in 1961" and cited as an example HR 6400, "a real lulu." "If it had gone through with no amendments, you wouldn't need a Congress because it would have reduced that branch of government to the role of yes men and restricted congressional action to a veto of recommendations by an administration hand-picked commodity committee."

The Emergency Feed Grains bill was extended in July, he said, "right in the middle of the growing season and before we could see what the product was going to be."

Mr. Beermann said he approached Mr. Freeman to ask "about a rumor that you're going to raise the support price on soybeans to $2.30 a bushel. Are you going to try to get soybeans in the same position as feed grains and wheat? He (Freeman) said, 'no,' but later went before the (House Agriculture) committee and admitted this was what he was going to do."

Mr. Beermann predicted further attempts to increase control over agriculture will be made at the next session of Congress, and asserted:

"They're not trying to kid you. They're trying to socialize your business. It makes no difference whether you're Democrat or Republican.

"Farmers," he said, "do not want government controls, but their desires aren't heeded."

He cited the wheat referendum which drew only 16,000 farmers to vote in Nebraska out of 78,000 eligible "despite one of the greatest publicity campaigns on record, in which newspapers carrying government press releases practically pleaded with wheat farmers to express an opinion." Though two-thirds of those voting favored more control, they represented only one-fifth of the eligible vote. The Department of Agriculture listed Mr. Beermann's home county, Dakota County, as one of 11

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Broiler Placements 4% Over Week Ago

SALISBURY, MD.—Broiler placements in the 22 important broiler states during the week were 4% above the previous week but 2% under the corresponding week a year earlier.

Hatcherymen also reported an increase in the broiler set over a week ago. It was up 3% but fell short of the year ago level by 4%, according to reports.

Increases in placements were reported for 16 of the 22 states as compared with a week ago. States reporting sizeable increases included: Delaware, Mississippi, Maine, Georgia and Pennsylvania.

Settings were also up in 16 of the 22 states. States for which sizeable increases were reported include: Delaware, Georgia, California, Florida and Arkansas.

Hart-Carter Acquires California Company

SAN FRANCISCO—Shanzer Manufacturing Co., manufacturer of stationary grain dryers in San Francisco for 25 years, has been purchased by Hart-Carter Co., Peoria, Ill. Hart-Carter produces farm machinery components and accessories.

P. E. Henseler, president of Hart-Carter, stated that the purchase of Shanzer was a cash transaction, and that most of the Shanzer production will be moved to the Midwest. The entire operation will be merged into Hart-Carter, he said.

Nitrogen-Rich Molasses Tested In Steer Feed

WASHINGTON — High-nitrogen molasses, a byproduct of an experimental sugar-refining process, could become a valuable source of nitrogen in livestock rations, the U.S. Department of Agriculture reports.

Feeding trials by animal husbandmen of USDA's Agricultural Research Service show that the new byproduct can be substituted for blackstrap molasses and urea in steer rations. Nitrogen provided by these supplements is converted to protein in the bodies of ruminants.

Steers fed a ration supplemented with the byproduct, which contains about 1.6% nitrogen, gained weight as efficiently as those getting a comparable diet containing blackstrap molasses (about 0.3% nitrogen) and urea. The urea—a nitrogen compound frequently added to feed—was used to make a ration equal in nitrogen to the one containing the byproduct.

Additional research is being conducted by P. A. Putnam and Dr. R. E. Davis at the Agricultural Research Center, Beltsville, Md., to learn how nitrogen from the byproduct is utilized by animals.

Several attempts have been made to artificially increase the nitrogen content of blackstrap molasses by adding ammonia. In some feeding trials, however, the ammoniated molasses has caused nervous disorders in the test animals. In the Beltsville study, steers fed high-nitrogen molasses remained normal and healthy.

Blackstrap molasses is often used in livestock feeds as a substitute for part of the grain. The molasses supplies an economical source of carbohydrate energy and improves the palatability of the feed. It is sometimes added to feed mixtures that are pelleted to prevent the pellets from crumbling. Blackstrap molasses, however, is a poor source of nitrogen.

The high-nitrogen molasses results from an intricate, ion-exchange technique used in the experimental process for refining sugar. This process is being developed by a company in Puerto Rico, which furnished samples of the molasses byproduct for the USDA tests.

'MIGHTIER THAN MISSILES' ORDERING URGED

CHICAGO — The American Feed Manufacturers Assn., in a bulletin issued Nov. 1, told members it is "imperative" that booklets and slide presentations of "Mightier Than Missiles" be ordered soon.

"Mightier Than Missiles" is the story of the feed industry, and is available in booklet and slide form.

Printing of the second edition is scheduled soon and, only if the association has sufficient orders, AFMA said, can the materials be offered at the cost of 10¢ per booklet and $10 per slide set.

Orders to date total nearly 20,000 booklets and 100 slide presentations. "While this is encouraging, only one third of the companies have responded. The real success of this basic story of the feed industry will depend upon its use by all feed companies," members were reminded.

Egg Competition Illinois Theme

SPRINGFIELD, ILL.—"Illinois has sufficient advantages to compete successfully with egg producers in other states if all segments of the industry in the state will work together toward that goal," Illinois Feed Assn. and Illinois Poultry & Hatchery Federation leaders concluded at a recent final convention-planning meeting at Springfield.

Illinois broiler feed tonnage has decreased to the point where it accounted for only 1% of total manufactured feed tonnage in 1960. Hog feed tonnage was most important in terms of volume—about 49% of the total, followed by egg-type feeds 19%; beef and sheep 18%; dairy 8%; turkey 2%, and miscellaneous 3%.

This is going to be the controversial nucleus around which the annual convention of the two associations Nov. 8-9 will be wrapped, the program committee announced. The convention will be at the Springfield armory.

"In a free enterprise economy, commodities are supplied by those who produce and market at the low-

(Turn to COMPETITION, page 96)

AFMA Calls on Feed Men to Orbit 'Mightier Than Missiles' Story

CHICAGO—Fuel that will power the "Mightier Than Missiles" feed industry public relations story into orbit is the enthusiasm of feed men across the nation.

The American Feed Manufacturers Assn. says that only through feed men's telling interested persons about the feed industry role in developing this mightiest weapon—U.S. production of food and fiber—can this public relations effort attain maximum success.

To assist feed men in telling this story of their industry's contribution to this mighty weapon, AFMA has announced that copies of the booklet "Mightier Than Missiles" are available at a price of 10¢ each with a minimum of 50 copies per order. There is also available a set of slides with script for $10. The slide set uses a number of the illustrations from the booklet and the script includes text from the booklet.

Orders for the booklets and slide sets should be mailed to: American Feed Manufacturers Assn., 53 West Jackson Blvd., Chicago 4, Ill.

AFMA states that it has mailed 50,000 copies of the booklet to persons in fields related to agriculture and the feed industry. But, the association emphasizes that there may be persons who are missed and asks that members should distribute the booklet to their personal acquaintances in associated fields.

Persons who were on the mailing list at AFMA headquarters included: County agents and their assistants, 4-H club directors, vocational agriculture teachers, veterinarians, county key agricultural bankers; college, dairy, poultry and animal husbandry department personnel; deans of colleges and directors of extension services, key personnel in the U.S. Department of Agriculture and the Food and Drug Administration, railroad agricultural agents, Production Credit associations and corporations, Farmers Home Administration supervisors, chambers of commerce agricultural executives, farm managers, state commissioners of agriculture and members of the House and Senate agriculture committees.

Introduced at Conference

This booklet was introduced Oct. 18 as a part of the second Feed Industry Public Relations Conference, sponsored by the American Feed Manufacturers Assn. (Feedstuffs, Oct 21, page 1.)

In his introduction inside the cover of the booklet, W. E. Glennen, president of the American Feed Manufacturers Assn., says, "America's mightiest weapon is its agriculture and agribusiness. Productive efficiency of farming has reached such heights that we are the best fed people in the world even though only one person in 25 is engaged in raising food and fiber. The other 24 persons are employed by industry, business and the many diversified services. This 'freedom of choice' for manpower has enabled the U.S. to reach its high level of development."

By way of comparison, the booklet says, "Should nearly half of our citi-

(Turn to AFMA, page 96)

MIGHTIER—This is the cover drawing used on the new booklet "Mightier Than Missiles" introduced by American Feed Manufacturers Assn. at the second Feed Industry Public Relations Conference held earlier this month in Chicago.

PROFILE—This drawing of a feed mill is used in the booklet, "Mightier Than Missiles," just released by the American Feed Manufacturers Assn.

USDA Puts Ceiling On Soybean Price

By JOHN CIPPERLY
Feedstuffs Washington Correspondent

WASHINGTON — This week the U.S. Department of Agriculture officially put a ceiling on the probable price of soybeans for this crop year.

In the outlook issue of "Fats and Oil Situation," USDA said, in part, "The seasonal swing in soybean prices in the 1961-62 crop year will at best be modest compared with 1960-61. Prices during the marketing year are expected only to advance to reflect storage charges. Next summer the CCC sales prices will tend to become the market price as crushers and exporters turn to CCC for supplies."

That is about as succinct a statement as has come from USDA for many years.

Officials at USDA previously said, in effect, when asked how they would explain to producers the denial of opportunity to attain the higher prices for beans which have prevailed in other years, that the producers were not the beneficiaries of such price advances and that the USDA goal was to assure farmers of the higher levels for soybeans as reflected by the higher loan rate in effect this year.

USDA also reports that it expects total edible oil exports from the U.S. for 1961-62 will amount to approximately 1.9 billion pounds with most of the increase over last year to consist in more soy oil exports.

Division of export buying for edible oils will probably be split evenly between dollar buying and government financing, including the donation program.

USDA dampens any bullish enthusiasm for soy oil later this year by forecasting only a moderate advance later in the crop year. Wide swings price-wise are doubted by the government. The price outlook, USDA says, will reflect a sharp increase in the output of soy oil pegged to the higher bean price support level and the record inventory of soy oil.

The government says that soy meal output will be up somewhat from last year's crush of about 500,000 tons and may go as high as 650,000. Trial prices should average slightly lower than last year, although recent meal prices have been running about $8 ton over last year.

Record Corn and Sorghum Grain Stocks

WASHINGTON — Stocks of old crop corn and sorghum grain in all positions Oct. 1 were at record high levels for that date, according to the U.S. Department of Agriculture.

Wheat stocks were slightly below the record level of a year earlier, while stocks of oats, barley, rye, soybeans and flaxseed were each below the previous year.

A relatively sharp volume increase for corn and sorghum grain more than offset the decline for oats and barley to push total feed grain stocks to a record high of 101 million tons, more than 6% above a year earlier.

The picture on various grain stocks as given by USDA:

Wheat—Stocks of 2,342 million bushels stored in all positions were practically the same as a year earlier, but 43% larger than average. Off-farm wheat stocks of 1,887 million bushels were the largest of record.

Rye—Stocks at 28.9 million bushels were nearly a fifth below a year ago, but 7% above average.

Old Corn—A new record of 1,998 million bushels was established. This is 12% higher than the previous Oct. 1. Farm stocks of 569 million bushels were 26% greater than last year's total of 452 million bushels. Only 44% of the farm stored corn was under Commodity Credit Corporation (CCC) loan, while, a year earlier, nine tenths of the farm stocks were under loan. Stocks in off-farm positions totaled 1,429 million bushels, 7% above a year ago.

Oats—Oats in storage totaled 957 million bushels, 11% less than last Oct. 1, and 17% below average, smallest total for this date since records began in 1943.

Barley—Total stocks were 424 million bushels, one tenth less than the total a year earlier, but 17% above the 10-year average.

Sorghum Grain—Carryover stocks at 701 million bushels were record high for the date —a fifth larger than the previous high a year ago. There were 670 million bushels in off-farm storages and 31 million on farms.

Soybeans—A carryover of 6 million bushels is about one fourth the 23.2 million bushels on hand a year earlier and the smallest Oct. 1 stocks since 1956. Only 1.6 million bushels were on farms.

Flaxseed—The 17.8 million bushels total is about one third less than the 26.1 million bushels on hand a year ago, and the smallest stocks for the date since records began in 1947.

NEW TEXAS FEEDLOT

GOLIAD, TEXAS — The newest feedlot in Texas' Golden Crescent is now open at Goliad. In operation three weeks, the feedlot has nine customers. It is located on nine acres, is divided into 16 pens which hold from 80-175 head. Smallest number accepted for custom feeding is 85. Total capacity is 2,000 head, and turnover time is 120 days, making possible feeding 6,000 cattle a year.

Control Outbreak

ATLANTA—An outbreak of screwworms in the South, believed to have been serious, has now been brought under control, officials said this week.

Florida had banned livestock moving into the state upon recommendation of officials in Alabama and Georgia, where the outbreak was noted. The ban was lifted within a few days for a period of 30 days.

One Group Opposes, Another Favors Broiler Marketing Orders

By Special Correspondent

ATLANTA—One southern broiler association has changed its mind and now favors marketing orders, with some reservations, while another went on record opposing orders this week.

The Eastern North Carolina Broiler Growers, Inc., reversing its stand of a few weeks ago, has come out in favor of government controls. Reservations are that "the quota be based on floor space as of Oct. 1, 1961, and so long as control of house footage be assigned to the owner of said house."

The reservation was also made that the definition of what constitutes a broiler house be determined by the Agricultural Stabilization Committee, and that the secretary of agriculture declare a percentage cut semiannually, "as seems reasonably necessary in order to keep supply of broilers in line with demand."

The Tennessee Poultry and Egg Federation, meeting in Nashville, passed a resolution against marketing orders and government controls.

Alabama Hatchery Planned by Purina

TRUSSVILLE, ALA. — Plans for construction of a hatchery to be located adjacent to the Smith's Pride, Inc., poultry processing facilities, now controlled by Ralston Purina Co., have been announced here.

The hatchery will represent an investment of about $225,000, it has been reported.

Purina obtained control of Smith's Pride, Inc. (see Feedstuffs, Oct. 28, page 1) through acquisition of a 60% stock interest in the company. Although no official announcement has been made regarding the purchase price, it is understood here to have been $1,200,000. The remaining 40% interest in the facility, which employs 510 persons, is being retained by A. J. and W. L. Smith, brothers who will continue to manage the operation.

The firm's 1960 sales volume was just under $10 million, and it is estimated that 1961 volume will total $11 million in poultry products.

There has been no disclosure here of the sale price of the Colonial processing plant at Abbeville, also purchased by Purina.

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PURINA

(Continued from page 1)

Poultry Co. were Herbert W. Terry, W. L. Hendon, Dillard Watkins and Martha Jane Terry, all of Athens, Ga., and R. L. Lester of Albertville. The poultry company consists of a broiler processing plant having a capacity of approximately one half million birds per week.

Mr. Danforth stated that Colonial's present manager, Robert L. Lester, will remain as manager. He said that operations and brand names will also be maintained as in the past.

The announcement stated that Purina had also acquired controlling interest in the Albertville Poultry Development Corp., owner of the building in which Colonial is located.

FEED MILL REOPENS

LE CENTER, MINN.—The Farmers Feed Mill, formerly the LeCenter (Minn.) Feed Mill, has reopened for business under new ownership and management following remodeling and installation of new equipment. Ray Steen, formerly of Trimont, Minn., has been appointed manager. The mill was purchased from its former owner, E. W. Timm, by the LeCenter Cooperative Creamery Assn.

CORNELL

(Continued from page 1)

ed by nearly 600 persons.

Feed men and others at the two-day event Nov. 2-3 were reminded that agribusiness today involves every phase of agriculture from the first step in the production process through the several stages of processing and the delivery of the finished product to a consumer's kitchen.

"People servicing agriculture today, whether they be scientists or feed manufacturers, must be aware that they are working on problems of a total business and not just one phase of a business," Mr. McNeal pointed out.

For scientists, it was indicated, this may mean some new directions in research—going beyond the traditional emphasis on feeding efficiency, where it is becoming more and more difficult to achieve additional gains.

For one thing, there may be important opportunities in more study of the effects of feeding on end products. This point also was brought out in the conference technical program, which included discussions of such things as modifying animal products through nutrition.

Mr. McNeal posed the question of whether or not scientists in the field of nutrition should broaden their areas of endeavor substantially and spend even more time than they presently are spending on factors other than feeding efficiencies.

While research which has brought tremendous advances in the efficiency of feeding results continues to be important, Mr. McNeal asked, "Have we reached a point of diminishing returns in this area of research, where greater returns can be realized by agriculture if research efforts cover a broader field?"

Illustration

To illustrate the need for broader research, Mr. McNeal went on to point out important changes and prospective changes on the consumer end of the agribusiness complex as well as on the production end.

In this connection, he warned that changes which have have occurring in agriculture in recent years are continuing and apparently are gaining speed. It must be realized that change is here, that it is continuing and that changes for the over-all good cannot be stopped. One of the industry's jobs is to contribute to the good elements of change and to point out the weaknesses.

Regarding nutrition research, Mr. McNeal said: "I realize fully that there is much room for achieving additional gains in feed efficiencies through greater knowledge. This will continue to be important. However, might it not be possible that we are in the position of an athlete who has worked his time in the 100-yard dash from 11 seconds down to 9.5 seconds? He certainly can make further gains but, with the world record being 9.3 seconds, additional improvements will be slow and will come only through a much greater effort per unit of improvement."

Still Opportunities

Although advances in feeding efficiency will be more difficult to obtain, research opportunities for nutritionists and others actually are greater.

"Some people interested in animal research could be overly impressed by the fact that they may realize diminishing returns from the type of research that has received greatest emphasis in the past," said Mr. McNeal. "Careful consideration of the type of consumer and producer we will be dealing with in the future, and the needs they will want satisfied, should convince us all that the fields needing study wil be expanding greatly. There will be greater demands for progress in the total complex known as agribusiness than at any previous time. This will call for a continuing reevaluation of the direction of our search for facts and in the application of the facts uncovered. Particularly does it challenge us all to be sure that we are keeping the scope of our inquiry broad enough to meet tomorrow's conditions."

Possible Changes

What are some of the changes that will affect the feed industry's services to agriculture? In considering this question, it is necessary to think in terms of both the producer and the consumer and those serving both groups.

So far as the producer is concerned, Mr. McNeal reminded feed men of these prospects:

1. Producing units will continue to increase in size, and the producer of tomorrow will be a much bigger operator than in the past. Just as one illustration of the fewer and larger units—10 years ago there were 150,000 laying flocks in Ohio; today there are less than 80,000. Some time ago a poultry authority in Ohio made the statement that in 10 years there probably would be less than 5,000 flocks in the state. Whether or not this estimate is too extreme, still it shows how drastic this trend could be.

2. This bigger operator will be a businessman in every sense of the term. He will keep good records and will, in a sense, be carrying on feeding tests with each group of livestock or poultry he feeds. He will be able to measure smaller improvements in efficiency than ever in the past.

3. The producer will be a specialist. In 1940 there was an average of 5.4 enterprises per farm. Today this is down to about 4. In the future, more and more farmers will specialize in one or two enterprises.

4. Being interested in all costs associated with handling livestock and poultry and the feeds that go into them, the producer will want feeds in the form easiest to handle. He will want feeds that flow freely to fit automatic handling equipment. He will be interested in any new ideas that will reduce the bulk he must handle.

5. This man will want as much flexibility as practical in rations in order to take advantage of changing price relationships. While a big computer may never be adapted for use by any but the biggest feeders, simpler means of figuring net costs of ingredient combinations will be available to him.

Voice of the Consumer

How about the consumer? Since consumers actually tell everyone what goods and services he can supply at a profit over any long period of time, it is necessary to consider what their demands may be.

Mr. McNeal noted that gains in efficiency in animal agriculture have enabled livestock and poultry producers to capture a much bigger share of the total market basket than some years ago. These trends in per capita consumption of animal products are compared with other foods are expected to continue during at least the next 10 or 15 years, if research on poultry and livestock production keeps the products attractive to consumers.

What factors will determine which foodstuffs will gain an increasingly favorable position in the market basket, and how will some of these affect farm producers and nutrition research and the feed industry?

Factors in Decisions

Mr. McNeal said the following considerations will surely be factors in the consumer's decisions:

1. Does the food have top taste appeal, and does it provide the nutritional elements needed for her family?

2. Is the food economical? Are the food elements provided by a particular food favorably priced relative to the same nutrients in other foods? An important question is to what extent research in animal nutrition can provide an increasingly greater amount of desired food elements in meat, milk and eggs at competitive costs.

3. Is the food attractive, and is it available in a convenient form?

4. Does the food fit into then-current fads, fancies or facts concerning foods and their values? Cholesterol and calories are two current illustrations. Scientists can't do much in advance about fads or fancies, but they help establish what facts will be important.

5. Last, but not least, the housewife will always be attracted by something that is new or has a new twist. There is a challenge to everyone working with producers and distributors in trying to provide a new look, a new taste, a new convenience or some other new feature.

Citing the various changes and the need for broader research, Mr. McNeal told scientists: "Your actions in changing the direction of research efforts to meet changing demands show that you do recognize this change in the challenge and are doing something about it. The challenge is a tremendous one, and it is not declining in size or importance."

AVI

(Continued from page 1)

for the period was 12¢ lb., under the production cost.

In regard to AVI's new venture, Harold Snyder, president, said the firm has signed an agreement to supply eggs to Standard Brands, Inc., New York, for a 14-month period starting Nov. 6.

The contract calls for a thousand 30-doz. cases of eggs to be delivered each week between Nov. 6 and Dec. 31, the company president stated. Between Jan. 1 and Dec. 31, 1962, the contract calls for 2,000 to 3,000 cases a week.

300,000 Birds

AVI has placed 300,000 commercial laying hens and pullets on feed to produce the eggs required by the contract, Mr. Snyder said. The chickens are on the farms of contract producers who will work under the same arrangements as AVI with contract growers producing broilers, it was stated. About 50 commercial egg producers are involved.

Mr. Snyder said AVI had produced commercial eggs on a pilot basis for some time. With the new production, AVI will be one of the largest commercial egg producers in Arkansas, he said.

Sherman E. Brown, manager of commercial hens for AVI, will supervise the egg production program, Mr. Snyder said.

At the time of AVI's financial statement, the board of directors' action declaring a 2% stock dividend was announced. This is to be payable Dec. 4 to stockholders of record on Nov. 15.

The reason for optimism despite the difficulties brought about by the record low broiler prices was explained by Mr. Snyder as follows: "We have made plans for gradual growth of our company into a major food producing and marketing firm. At present we are working toward setting up a marketing division to improve distribution and prices. Because of the fact that we believed our stockholders would desire to share further in the expansion of our company, our board of directors has declared a stock dividend instead of the cash dividend that we have paid on a quarterly basis in the past."

SALES MANAGER DIES

DENVER, COLO.—D. L. (Doc) Chase, 48, sales manager of the Ranch-Way division of Colorado Milling & Elevator Co., Denver, died Oct. 29 at his home. Mr. Chase was injured in an automobile accident two weeks before his death, but had been released from the hospital a week before he died.

He joined CM&E five years ago, having been employed previously by feed firms in Abilene and Salina, Kansas.

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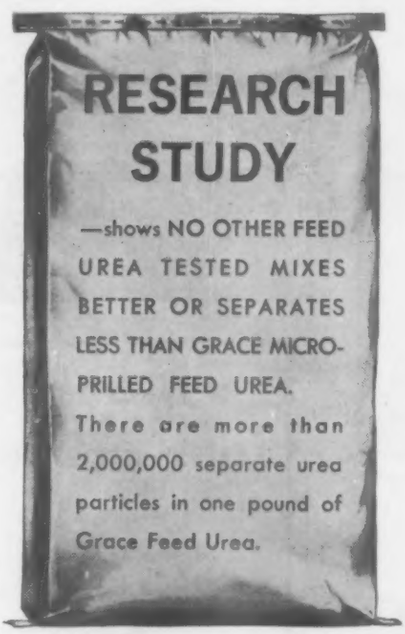
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Ruminant and Poultry Feeding Questions Answered at California Conference

By ROGER BERGLUND
Feedstuffs Managing Editor

FRESNO, CAL.—How do milo and barley compare in feeding cattle—and grinding vs. rolling the grain? What's the latest on calcium levels for layers? How much should feed be restricted for replacement pullets? What about cottonseed meal for layers? What are some of the problems in feeding pelleted feeds to ruminants? How does the ruminant vitamin A problem stand?

Comments and recommendations on these and other timely questions were offered in research reports and panel discussions at the annual California Animal Industry Conference at Memorial Auditorium in Fresno.

The conference, sponsored by the University of California and the California Hay, Grain & Feed Dealers Assn., drew some 350 persons from California and points as far away as the East Coast. Many aspects of poultry, livestock and dairy feeding were covered by California and guest speakers.

Among the highlights of the conference were the concluding features—"research briefs" presented by California nutritionists and others, plus poultry and large animal panel discussions. Summaries of research briefs and panel discussions which were not part of the published conference proceedings follow. (Copies of the proceedings may be obtained for $2.50 each from the California Hay, Grain & Feed Dealers Assn., 1400 10th St., Sacramento 14, Cal.)

MILO VS. BARLEY FOR CATTLE—Dr. William Garrett of the California station at El Centro pointed out that there are differences of opinion among feeders and differences in research findings regarding the relative feeding values of barley and milo and the value of rolling vs. grinding. To help provide further information a test was run in the Imperial Valley with milo and barley, rolled and ground. It was found that gains and feed efficiencies for barley and milo and for the rolled and ground grains were similar. Calculations of TDN showed milo slightly superior.

Dr. Garrett noted that there was no advantage for steam rolling in this test, and he suggested that there should be economic or other reasons for the method of preparing barley or milo which is used.

CALCIUM LEVELS FOR LAYERS—Hobart Halloran, Halloran Research Farm, Modesto, Cal., reviewed information on calcium levels and offered suggestions on levels to use. He noted that the current NRC recommendation is 2.25% of the ration and that Dr. H. R. Bird of Wisconsin in a California talk suggested 2.75%.

Mr. Halloran pointed out that a modern 4½-lb. bird eats less feed than layers consumed in former years. And he mentioned a calculation showing a bird with a 900 Calorie ration, laying 209 eggs per year, would require 3.9% calcium. He went on to note, too, that there are strain differences in calcium requirements.

Mr. Halloran suggested using the philosophy that one is feeding the top producers. Also, he mentioned that one should remember that the availability of calcium is about 50%.

Many feed companies, said Mr. Halloran, are using levels of 3½ to 4% calcium in laying feeds. In some cases growers may add more; harm can be done if there is too much, he cautioned.

Calcium level isn't the only answer to egg shell problems, but Mr. Halloran suggested these levels—for Leghorn birds, 3½% in the winter and 4% in the summer.

FEEDING IN THE CONTROL OF SEXUAL MATURITY OF REPLACEMENT PULLETS—Dr. Syd Fox of England, who attended the conference, discussed restricted feeding of pullets. He pointed out that as day lengths increase, birds come into lay faster, and vice versa. This can present a particular problem with birds from December, January and February hatches. There may be a problem of small eggs, and the birds may stay with smaller eggs for a longer time.

A lighting system may be used to delay maturity of early hatched birds, but some may want to do it through a feeding method. Dr. Fox said that the really only effective way to delay maturity through feeding is by rationing the intake of feed. If one feeds an amount which is about 70% of normal, birds will be held back two or three weeks. A small amount of rationing is not effective, he said, and cutting back to 50 to 60% results in semi-starvation.

Dr. Fox said that one can't effectively dilute a normal ration. Use of 10 or 20 or 30% inert material may find the bird eating 25% more and getting about the same nutrients as normal.

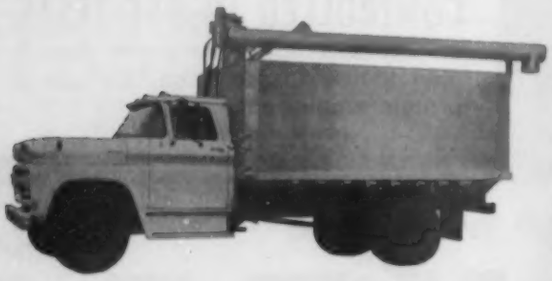
A compromise may be necessary, he observed. With use of 70% of normal volume, the bird may not be satisfied. It may be advisable to use some inert material along with a rationing program.

Rationing of both energy and protein is most effective, according to Dr. Fox. Use of either alone will bring about half the effect of rationing both.

If one rations food intake, he should cut back about 30% on both energy and protein.

Dr. Fox said that if the poultryman holds early hatched birds back three weeks, a pretty good job is the result. He currently suggests using

(Turn to CALIFORNIA, page 88)



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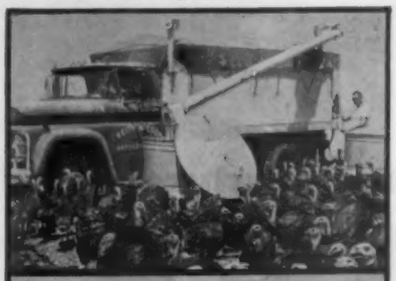

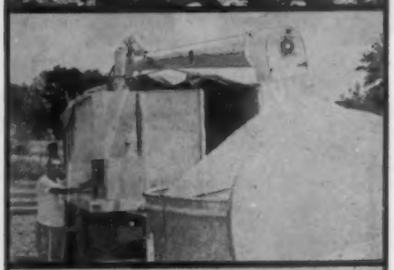

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Feed for Thought

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The individual feed manufacturer wishing to develop this means of reducing his production costs would be required to devise a system of computation and analysis costing approximately $500. Each formula solution would then, in addition to the initial programming cost, be about $20 per solution. Peter Hand Least Cost Formulation Service eliminates the initial programming costs for you and reduces the cost per formula solution to less than half. It is evident that any savings per ton provided by the Peter Hand Least Cost Formulation Service would quickly pay for itself and then snowball into profits for you.

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Look for "Feed for Thought" every month. This popular column appears regularly in this same place (page 14) in the first Feedstuffs issue of each month.

Peter Hand

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Recommendations on Lights for Turkey Breeders Presented

ST. PAUL—Nine recommendations on lighting for breeder turkeys were part of the management research reported on during the Minnesota Nutrition Conference on the farm campus of the University of Minnesota here.

"Light Requirements of Growing Turkeys" was the topic of a talk presented by Dr. R. N. Shoffner, professor, department of poultry husbandry.

The nine recommendations as outlined by Dr. Shoffner were:

(1) Darken females early, 18-22 weeks of age.

(2) Do not darken toms. Give them 13-15 hours daily.

(3) Condition on a six or eight-hour day.

(4) Condition for three to six weeks.

(5) Stimulate into production at 28-32 weeks depending on strain, with abrupt change to 15 hours.

(6) Use long initial stimulating day if an early peak is desired (18-24 hours).

(7) If males have been through a period of short days, be sure to prelight for three weeks ahead of stimulatory light for hens.

(8) Increasing day length during the laying season is of doubtful benefit.

(9) Second season lay is uneconomical.

Traits of Lighting

Dr. Shoffner pointed out that the four main traits of lighting which are important for response are:

(1) Composition. The red portion of the visible spectrum is most effective, and regular incandescent bulbs are recommended.

(2) Intensity. The suggested amount is two foot candles, 18 in. above the floor level, or one 60-100 watt bulb for each 100 sq. ft. of space.

(3) Daily light-dark ratio. This must be large enough to induce onset and maintenance of lay. The best ratio is in the range of 14-16 hours of light and 8-12 hours of dark.

(4) Rate of change. The rate of change of daily light to dark over a period of time functions as a conditioning and synchronizing external element. The response is highly correlated with rate of change.

Dr. Shoffner continued by explaining that the biological clock of the turkey functions under natural conditions through seasonal photoperiods where the bird grows during the long days of spring and summer, matures during the short days of winter and is stimulated into reproduction by the increasingly long days of the following spring. Thus, he commented, light management usually follows this pattern of nature.

Hess & Clark Begins Quarterly Publication

ASHLAND, OHIO—Animal Health Trends, a new quarterly publication, has been sent by Hess & Clark, Ashland, Ohio, to its distributors of animal health products and their salesmen.

The publication will come out every three months as a sales and merchandising service. Articles will feature news about the company, its products and distributors, along with industry information plus general sales and merchandising tips.

The first issue includes a column, "Merchandising for Profit," by James R. Pfeil, animal health products manager; articles on merchandising displays; why a sales figure by itself is not always a true barometer of business progress; the importance of proper placement of convenience goods in retail outlets, and a summary of the recent sales management seminar.

It is printed in three colors, and contains eight pages of articles and photographs, including a center spread of advertising programs to give support to distributors in their selling efforts.

Drug Cleared for Chicken Disease

ASHLAND, OHIO—Use of furazolidone (nf-180) for prevention of infectious hepatitis in chickens has received clearance from the U.S. Food and Drug Administration. The announcement was made by Russell H. Eshelman, vice president, marketing, Hess & Clark, Ashland, Ohio, manufacturer of nitrofuran feed medications.

Feeds containing furazolidone at a level of .011% (100 gm. per ton) of total ration and fed continuously during the danger period may be labeled for the prevention of "infectious hepatitis in chickens."

Furazolidone has been used to treat infectious hepatitis for over three years, Mr. Eshelman pointed out. A 200-gm.-per-ton level of furazolidone fed for 14 days is used for treating the disease.

This new use broadens existing claims for furazolidone which, according to the manufacturer, "controls more poultry diseases than any other drug."

Rules for Control of Layer Diseases Told

HARRISBURG, PA.—Speaking before the Northeastern Poultry Producers Council Exposition audience here recently, Dr. Glenn Snoeyenbos, University of Massachusetts, laid down two ground rules for disease control in laying stock.

Dr. Snoeyenbos, after outlining the problems involved, said the rules to follow are: "Start with disease-free stock and maintain the birds in a disease-free environment."

"Those diseases which are spread by the movement of man," he said, "can be controlled by regulatory action to prevent the infected flock from endangering the healthy ones." He then called for greater effort in developing more nearly disease-free stock, even at the occasional sacrifice of genetic selection.

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With the new design, 50 lbs. of the low density resin can now be packed in each bag. Most importantly, the pasted bottom bags can be palletized five to a tier, eight tiers to a skid for a total payload of 2,000 lbs.—the same as the high density resins.

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The pasted-bottom bag offered several outstanding advantages. It permitted better use of warehouse space. It increased the yield per warehouseman to *1,000,000 lbs. a month.* And it initiated the development of a similar design for the company's high density resins, which could increase the present pallet payload to 2,500 lbs.

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Names in the News

KINTER & GROVE NAMED BORDEN SUPPLEMENT DISTRIBUTOR—Kinter & Grove, Inc., of Dillsburg, Pa., has been named as the Borden Special Products Co.'s exclusive distributor of feed supplements in central Pennsylvania and northern Maryland, according to Richard G. Sanders, sales and marketing director of Borden's feed supplements division.

A major feed manufacturer, Kinter & Grove has been using Borden's feed supplements in its products for many years. The firm is headed by Raymond Colvin, president.

Borden's feed supplements will be stocked by Kinter & Grove, which will also serve Borden accounts in the area directly.

DR. EARL L. BUTZ ELECTED TO BOARD OF INTERNATIONAL MINERALS & CHEMICALS CORP.—Dr. Earl L. Butz, dean of agriculture at Purdue University, has been elected to the board of directors of International Minerals & Chemical Corp. Dr. Butz joined the Purdue faculty in 1937 and was appointed head of the agricultural economics department in 1946.

In 1954 he was appointed assistant secretary of agriculture, and he served on the board of the Commodity Credit Corp. In 1957 he returned to Purdue as dean of agriculture.

DR. F. N. ANDREWS TO HEAD PURDUE'S DEPARTMENT OF ANIMAL SCIENCES—Dr. Frederick N. Andrews, animal physiologist and head of Purdue University's dairy department, will become head of the school's new department of animal sciences Jan. 1, 1962, according to Dr. Earl L. Butz, Purdue dean of agriculture. The department of animal sciences will combine the staffs and the programs formerly administered in the departments of animal science, poultry science and dairy. Dr. J. Holmes Martin, head of the poultry science department, will be assistant head of the newly created department, and will also coordinate genetic investigations in the enlarged department.

Dr. F. N. Andrews

Prof. Claude Harper, who has headed the department of animal science the past 16 years, has received leave from Jan. 1-June 30, 1962, date of his retirement. He will leave late in January for Indonesia for an assignment under the International Cooperation Administration.

Dean Butz said the consolidation of the three existing departments will permit a substantial increase in the professional output of the new department, and increase the efficiency with which farm and laboratory facilities are utilized.

PILLSBURY APPOINTS ROBERT GARDAY AREA SALES MANAGER—Robert Garday has been appointed area sales manager for the Indiana and central-southern Illinois areas served by the Pillsbury plant in Clinton, Iowa, according to Lonnie Wright operations manager for the central west region of the Pillsbury feed division. Mr. Garday is an agricultural science graduate of the University of Missouri. He worked two years with Hancock Grain Co., Carthage, Ill., and five years with Illinois Farm Supply, where his most recent assignment was assistant merchandising manager at Bloomington, Ill.

Robert Garday

FORREST M. LONG NAMED TO LAMBRIGHT POST—Forrest M. Long has been designated sales manager for Lambright Meteor Breeder sales by Lambright Hatchery and Poultry Farm, Inc., LaGrange, Ind.

Mr. Long has been with Lambright since 1955. Prior to his new assignment, he was responsible for promoting Lambright broiler chicks. With experience in feed sales and service and feed mill managing, he has been closely associated with the poultry industry in Indiana, Illinois, Michigan, Wisconsin and Pennsylvania.

Forrest M. Long

A. L. PARK NAMED BEMIS BAG PLANT SALES DIVISION MANAGER—Bemis Bro. Bag Co. has named A. L. Park, manager of the St. Louis company's paper specialty plants, manager of the St. Louis bag plant and sales division, it was announced by C. W. Akin, executive vice president.

A. L. Park

In related new assignments, J. S. Heard, resident manager of Bemis' Crossett, Ark., paper specialty plant, has succeeded Mr. Park at the paper specialty plants headquarters in St. Louis, and H. J. Coyne, field sales supervisor for the company's Houston sales division, has assumed Mr. Heard's vacated position at Crossett.

Mr. Park joined Bemis in 1949, and, since 1956, has been manager of paper specialty plants.

J. E. BLOUGH NAMED ALLIED MILLS PLANT MANAGER—J. E. Blough has been named general plant manager of the Allied Mills feed plant and the soybean processing plant at Guntersville, Ala., succeeding Elster B. Copeland, who has been transferred to the Chicago office, it has been announced by F. F. Blough, vice president in charge of manufacturing.

Mr. Blough joined Allied Mills in 1932 in the accounting department of the Chicago office. Most recently, he was plant manager at Ft. Wayne, Ind.

Elster B. Copeland J. E. Blough

Mr. Copeland, who has been with Allied Mills since 1959, will devote his activities principally to the soybean division.

DR. GILBERT F. OTTO NAMED TO ABBOTT RESEARCH POST—Dr. Gilbert F. Otto has been appointed director of agricultural and veterinary research by Abbott Laboratories, North Chicago, Ill., and will be responsible for animal health and clinical research, agricultural farm research and animal health and nutrition research.

His appointment was one of three announced by Dr. Arthur W. Weston, vice president in charge of research and development.

Dr. Herbert M. Gross has been named director of new products coordination, a new division which embraces packaging development, new product research and pharmaceutical research, and Dr. Richard U. Schock has been promoted to director of chemical research. He will be responsible for microchemistry, biochemistry, organic chemistry, physical chemistry and chemical liaison.

Dr. Otto joined Abbott in 1953. He had been at Johns Hopkins University, where he was professor of parasitology and assistant dean of the school of hygiene and public health.

WESTVACO INCREASES BAG DIVISION SALES FORCE—West Virginia Pulp & Paper Co. has made two additions to its sales forces in the West and Midwest, it was announced by Jason M. Elsas, sales manager for the company's Multiwall Bag division.

Robert J. Gigler has been appoint-

(Turn to NAMES, page 34)

Ontario Agricultural College:

Evidence is presented to indicate that the fluorine in soft phosphate (Calcium Fluoride) is relatively unavailable to the chick. Whereas, SODIUM FLUORIDE added to dicalcium phosphate tended to depress weight, especially in the presence of added fat.

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media, pennsylvania

A Natural, Research-Proven, Sensibly Priced Phosphate That Has Fortified More Than 100,000,000 Tons of Feed

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Power Shovel Buy!

This little 286 pound powerhouse will astonish you with its pulling force of more than 1300 pounds and work output of 100 tons per hour.

Dollar for dollar the rugged STOHR ROTO SHOVEL gives you more . . . the ease of handling, capacity, and dependable, money-saving results . . . than other power shovels costing nearly twice as much.

One man handles it with ease. You get instant, push-button stop-start action you can count on. Because it's completely portable you wheel it from job to job . . . fold back the retractable wheels when it's in use.

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For a limited time only

FREE! to give as a gift... or to keep for yourself

PHILLIPS 66 MARLEX® PLASTICS

Made of the new wonder material from Phillips Chemical Company

★ Water-tight ★ Virtually unbreakable
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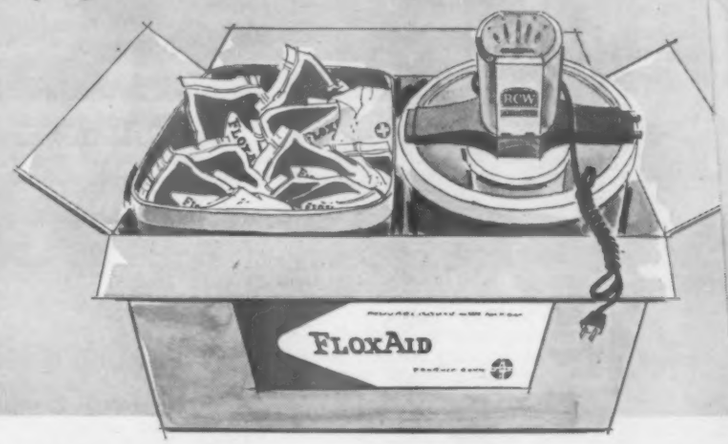
★ Just plug in... *it* does all the hard work



Yes... you can get this HANDSOME FREEZER FREE

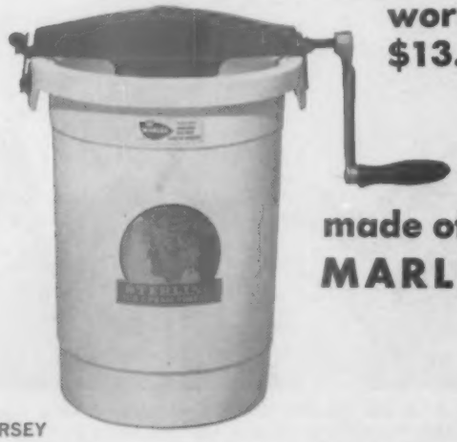
with every purchase of two 25-lb. drums of *New* FLOXAID... the Merck poultry drinking-water booster that:

- Contains high levels of streptomycin
- Contains two forms of penicillin
- Contains 9 vitamins for normal growth
- Combats stress and disease setbacks in poults, broilers, replacements, layers, breeders
- Does not clog automatic fountains or water-medication systems... leaves no sludge!

(Each 25-lb. drum contains SEVENTY-FIVE 5⅓-oz. plastic bags)

Or—*FREE* with each single 25-lb. drum of *New* FLOXAID Formula

A hand-operated ICE CREAM FREEZER worth $13.95 made of MARLEX



MERCK CHEMICAL DIVISION, MERCK & CO., INC., RAHWAY, NEW JERSEY

What Makes Walnut Grove Grow?

Officials of Firm Which Increased Its Volume 20-Fold in 10 Years Outline Views on Business Developments and Describe Sales and Other Operations

By Roger Berglund
Feedstuffs Managing Editor

The feed industry in recent years has been described as a "mature" industry, with expansion leveling off after previous record growth. But, as with any rule, there are exceptions. One of these exceptions is an Iowa-headquartered feed manufacturing firm which increased its business twenty-fold in the decade from 1950 to 1960 and this year looks for sales to top 1960's by nearly 40%.

The firm is the Walnut Grove Products Co., Inc., of Atlantic, Iowa—a six-plant operation serving the heart of the Corn Belt livestock area. It is a direct-selling firm which sells and distributes feeds through more than 450 salesmen and 48 warehouses in Iowa and parts of the surrounding states.

In 1951, net sales were $1,624,956, and net income was $65,046. In fiscal 1960, net sales totaled nearly $18 million, and net income was close to $700,000. For the current fiscal year ending Nov. 30, it is expected that sales will be more than $23 million. As a matter of fact, for the first three quarters of the current year, both sales and profits were higher than in any previous complete year. Consolidated net sales for the nine-month period ended Aug. 31 totaled $18.3 million, and net earnings for the first nine months totaled more than $1.1 million.

Furthermore, the company's management is confident of continued rapid growth. As volume expands, annual increases cannot be so large percentagewise, it is acknowledged. But on a yearly tonnage basis, the Walnut Grove people look for increases in the next five years which will be similar to those of recent years.

The obvious question is the how and why of past and anticipated growth in the highly competitive feed industry.

The Walnut Grove executives are frank to say that their operations and organization differ from those of many other companies and that not everyone agrees with their systems. But they also are quick to say that they are confident that their products and services and organization will bring continued rapid expansion. And this confidence and enthusiasm are reflected all through the organization.

To what does top management itself attribute the growth?

(1) No business is any better than the people in it, and the executives first mention the people in all areas of the company—the selection, development and training of people, from truck driver to managerial level.

(2) Research and product quality.

(3) Service — helping farmers to produce meat, milk and eggs more efficiently and profitably, to get the most from their own feedstuffs and their farm enterprises.

(4) A strong, sound sales organization, and efficient production and distribution.

Is the future bright for Walnut Grove and the feed business? Yes, says J. J. O'Connor, president. "Our business is basic to the economy of the country, helping in the production of food," said Mr. O'Connor. "I don't believe there ever has been a greater opportunity for the feed business. With the demand for better foods, with our population growth, with the need for the farmer to produce still more efficiently, the feed business looks like a sound, basic business to us."

Walnut Grove originated as a small mineral feed business. Today, the firm makes nearly a full line of feeds, but with emphasis on livestock supplements.

Major Points

In some respects Walnut Grove differs from many other feed manufacturing concerns; in other ways, it is similar. At any rate, here are some of the important points about the operations of this company:

1. The company serves the heart of the Corn Belt livestock area, a region with the largest concentration of swine and beef cattle, plus dairy and poultry operations.

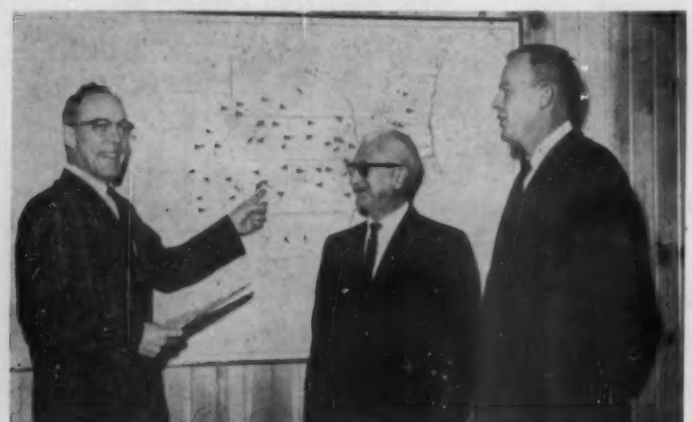
2. By far most of the firm's sales are in swine, beef and dairy feeds.

EDITOR'S NOTE: One of the fastest growing companies in the feed manufacturing business is Walnut Grove Products Co., Inc., of Atlantic, Iowa. The views of company officials and details on various aspects of the firm's operations are being presented in a series of two articles in Feedstuffs. The accompanying article — dealing primarily with development of the company, over-all operations and the sales organization—is the first of the two articles.

MODERN PLANT—This is Walnut Grove's Plant No. 3, at West Liberty, Iowa. It is a completely automatic, push-button mill. Other plants are located in Atlantic, Independence and Cherokee, Iowa, and Elkhorn, Neb.

MANAGEMENT TEAM—Seated is J. J. O'Connor, president of Walnut Grove. Standing, left to right, are C. C. Hansen, secretary and director of personnel; M. D. Livengood, executive vice president and treasurer; Dick L. Jensen, legal counsel, and Wm. G. Cook, administrative assistant.

CHAIRMAN OF THE BOARD—E. A. Kelloway is chairman of the board of Walnut Grove Products Co., Inc., Atlantic, Iowa, and is president of Watson Transportation Co., Inc., Omaha. Walnut Grove owns a controlling interest in the transportation firm. Mr. Kelloway went to Atlantic in 1947 as vice president of Walnut Grove. In 1949 he became president, and in 1959 was named board chairman. Mr. Kelloway is credited with bringing in a new management and sales team and with rebuilding the organization throughout.



SALES AND SALES PROMOTION—Looking over a map of the Walnut Grove sales and distribution area are, left to right, Eldo H. Meyer, general sales manager; C. D. Becker, vice president, and Jack Bergstrom, director of public relations, sales promotion and advertising.

SALES TRAINING—C. A. Swisher (left), assistant general sales manager and director of sales training, and Ray Underwood, assistant director of sales training, are shown during a session at Walnut Grove's central training school for sales/service representatives.

And most of the business is in supplements rather than complete feeds.

3. Sales and distribution are entirely through company salesmen and warehouses, with no dealers or distributors.

4. The company is a "young" one. Most of the executives have been with the firm only a relatively short time, and many had no previous experience in the feed business, having been brought in by the now board chairman, who himself did not become active in the business until 1947.

5. In the manufacturing and distribution setup, feed is not ordered by warehouse outlets; it is made and sent to them as part of a well organized central production planning system.

6. The company has no plans to become involved in end product marketing. "We are feed manufacturers and intend to remain as just that," said the president.

7. Most salesmen have had no previous feed industry experience, and many have had no previous sales experience. The company prefers to train and develop its own sales-service men.

8. The service program includes a complete financial planning guide for a farm operation, covering all income and outgo, as well as feeding programs. Credit problems have been minimized.

9. Emphasis is put on research and product development and communication of technical information to the field.

10. Walnut Grove has an extensive quality control program which touches all operations from ingredient specifications to delivery of feed to the farm.

11. Advertising programs involve some different approaches, such as sponsorship of football broadcasts rather than farm market news programs.

12. Purchasing of ingredients coordinated by the production planning department.

13. By far most of the firm's feed is delivered in bags rather than bulk.

14. Much of the company's feed is fed on a free-choice basis, or it may be combined with grain on the farm in relatively simple systems. The company discounts custom mixing and grain banking.

15. The company has diversified; it owns controlling interest in a large transportation firm, and other interests include grain processing plants, a turkey operation and a bank.

16. The company has a special veterinary research department which maintains liaison with practicing veterinarians. The firm sells no animal health products.

Because of the rapid growth of Walnut Grove and because of some of the special aspects of its operations, some details on the organization and its systems are of interest:

HISTORY AND DEVELOPMENT OF COMPANY—The present company stems from a farm and feedlot operated near Anita, Iowa, in the early years of this century, by W. E. Kelloway. Mr. Kelloway, who became the founder of Walnut Grove, is said to have included trace minerals in his rations at least a decade before the value of these elements was formally recognized by science. Also, as early as 1920, antiseptics and digestive stimulants were added to the ration, more than a quarter of a century before antibiotics came into use.

IBM DEPARTMENT—All feed orders funnel through the home offices, where orders are processed with an IBM system. In this picture, Don Stelpflug (left), manager of accounting administration, and Don Robb, IBM manager, check one of the intricate panels which control a machine.

ASSISTANT TO PRESIDENT—John L. Bunce is executive vice president of Watson Transportation Co., Inc., Omaha, and assistant to the president, Walnut Grove Products Co., Inc. Walnut Grove acquired a controlling interest in Watson as part of recent diversification moves.

Neighboring farmers asked to buy Mr. Kelloway's mixtures, and then in 1920 a commercial firm, called Walnut Grove Products Co., Inc., was organized at Anita to manufacture and sell a hog mineral. The firm grew, manufacturing minerals for livestock and poultry, and in 1926 the company was expanded and moved to Atlantic.

Today, in recounting growth of the company, E. A. Kelloway, son of the founder and now chairman of the board, puts a great deal of emphasis on early nutritional developments, such as addition back in 1926 of copper sulphate to the swine mineral. Subsequently, he notes, formal research showed the values of copper sulphate, and today there is renewed

(Turn to page 22)

OFFICES—This building in Atlantic, Iowa, houses the administrative offices of Walnut Grove. The executive offices are in a smaller building across the street.

Faster GAINS for Fatter PROFITS

Poultry and swine attain extra growth response from CFS Concentrates.

CFS CONCENTRATES

The profit-producing benefits of CFS Concentrates have been proved through university tests using controlled rations with broilers, turkeys and swine. With this single, *economical* concentrate, you can partially replace or eliminate more expensive sources of UGF (unidentified growth factors). This means more profit for *you* in the manufacture of high-efficiency rations. Put CFS Concentrate into your production plans *now*.

CLINTON CORN PROCESSING COMPANY
CLINTON, IOWA

"ALDEN" Dairy-White Barnlime *is better to start with*

The "ALDEN" quarry is noted for its top quality limestone. That's the main reason "ALDEN" Dairy-White Sweet Barnlime absorbs moisture better, reduces barn odors quicker, makes manure richer. Dairy-White contains more than 98% calcium carbonate. It's safe, effective, non-irritating . . . gives cows more sure footing on slippery floors. Packed in colorful 50-lb. bags; regular, coarse or extra coarse. Stock "ALDEN" now and share the benefits with your customers.

Other Top Quality IOWA LIMESTONE PRODUCTS

"ALDEN" Shell and Bone Builder . . . For stronger bones, higher egg quality-It's better for hens because it is more soluble, dust-free, has greater purity. Also, it costs about half as much as other products. In 50-lb. bags.

"LITTER-LITE" Poultry Litter Conditioner . . . Absorbs moisture, helps prevent litter crust, lowers bacteria count, reduces litter cost. Used by more and more poultrymen to keep eggs cleaner. In red and white 50-lb. bags.

"ALDEN" Calcium Carbonate . . . Consistently high in calcium carbonate (98% or better). Available in 50- or 100-lb. bags or in bulk, coarse, medium or regular grind. Adequate storage assures same-day handling of your order.

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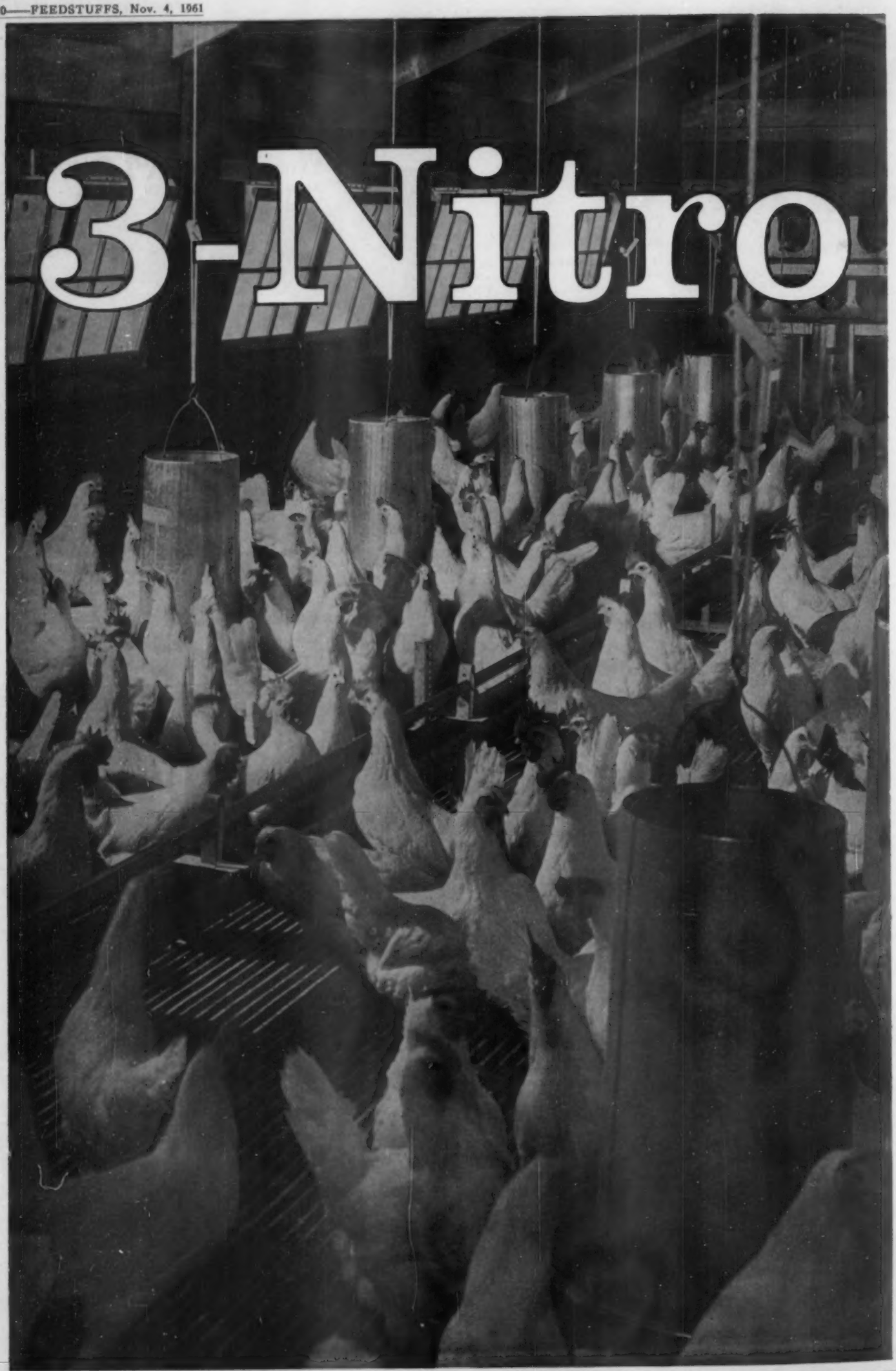

3-Nitro

...in your laying mash gives your customers 3 important benefits...

1. *Increased egg production*

2. *Improved feed efficiency*

3. *Better livability*

Top efficiency is a must for today's poultrymen—if they're going to make top profits. That's why more and more successful poultrymen are feeding 3-Nitro to their laying flocks. They have found that 3-Nitro **boosts egg production per hen, increases feed efficiency, and reduces flock depletion.** Records indicate that 3-Nitro-fed birds need a quarter of a pound less feed per dozen eggs . . . that 3-Nitro helps birds live and lay. For example, a hen may lay up to a dozen extra eggs in a single year—at a cost of a few cents for the 3-Nitro. All these benefits because 3-Nitro keeps birds healthier. And healthier hens get more good out of their feed.

YOU BENEFIT, TOO

Customer Satisfaction. Growers quickly recognize the value of 3-Nitro. And they tell their neighbors.

Your Feeds Do Better. 3-Nitro helps birds lay at the peak of their bred-in ability. This reflects credit on your feed.

Mixing Convenience. 3-Nitro is one of the easiest of all feed ingredients to handle, to mix, and to inventory.

Ton-Pak Available. 3-Nitro is one of several Dr. Salsbury's feed additives available in the new Ton-Pak, for faster, surer control of batch-mixed feeds.

3-NITRO IS WIDELY ADVERTISED

Because of sustained advertising and promotion, your customers know of 3-Nitro's many advantages. So, make sure your feeds provide its many benefits. Write, wire, or phone for Feed Manufacturers Guide. Or, if you wish, ask for a Dr. Salsbury's representative to call personally and talk with you about 3-Nitro, the feed additive that gives your laying mash extra benefits to boost customer profits.

Dr. SALSBURY'S LABORATORIES

Charles City, Iowa, U.S.A.

MORE THAN PRODUCTS—A SYMBOL OF SERVICE

interest in minerals in livestock and poultry feeding.

Steady growth was shown, but for more than 30 years Walnut Grove remained a relatively small company. Then, shortly after World War II a new management team, headed by E. A. Kelloway, assumed direction of the firm.

Mr. Kelloway, who had been associated primarily with the livestock business, came to Atlantic in 1947 to "retire". At that time the company was doing an annual business of some $750,000 and was showing a good profit.

However, Mr. Kelloway took a look at the operation and noted that, among other things, sales were being handled by 125 part-time salesmen averaging 61 years of age. He knew that it was necessary to rebuild the organization throughout. And Mr. Kelloway, who was described by one of his associates as an "impatient man," set about to do just that. He came to Atlantic in 1947 as vice president. In 1949 he became president, and he continued in that position until 1959, when he became chairman.

Mr. Kelloway built a new executive and sales team, and then in 1951 a beginning was made in broadening the product line. This coincided with the new developments in use of antibiotics and vitamins. For years the company had made only mineral feeds, but in the early 1950's the move into complete supplements was made.

One of the first new products was a mix which included minerals, animal protein factors and vitamin and antibiotic fortification. This was used with vegetable protein and grain to make a complete recommended feed. Later complete supplements and a complete feed line were developed. The early fortified mix is still in the company's product line, however,

The period since 1950 has been one of rapid growth, with business expanding some 20 times over. This period has seen the establishment of the research farm, the shift from part-time salesmen to trained full-time salesmen, the development of a new management team and the expansion of plant and facilities.

Asked to what he attributes the growth, Mr. Kelloway said quickly that "it's people and research and product quality that have made Walnut Grove."

Who are these people? In addition to the salesmen and other key personnel, it is interesting to note that most of the present key executives have been with the company a relatively short period, not more than a dozen years for the most part, and most had no prior experience in the feed business.

One example of the new personnel brought in by Mr. Kelloway is Mal Livengood, now executive vice president and treasurer. He joined the company in 1948 at the age of 26 after previously being a CPA with a public accounting firm which audited the company's books. Joe O'Connor came to Atlantic in 1947 as superintendent of schools. In 1951 he joined Walnut Grove, and today he is president. Another key man is still in his 20's. He is Tom Hoover, director of manufacturing and distribution, a Kansas State University feed technology graduate who is only a few years out of college. One of the most recent additions was Dr. Damon Catron, well known swine nutritionist from Iowa State University who became vice president of research and development a couple of years ago. There are other examples, too. All of the management personnel are relatively young. In fact, the whole company is one of youth.

"Whatever job a man has, we feel he is the best qualified man for that job," said Mr. Kelloway. "He has qualified himself for that job. Most of our people have been developed in the company."

It was pointed out that much of the expansion has come from money put back into the company. However, in 1960, when diversification moves were made, additional capital was acquired through an insurance company loan and the sale of sinking fund debentures and stock to the public. Today there are some 2,100 stockholders. Common stock sold at $10 per share in 1960 now trades on the market at more than twice this value.

ORGANIZATIONAL STRUCTURE — The company's organizational structure is felt by company officials to be "one of the most efficient that can be found." At the top is the president, and under him are the various divisions—accounting; research and development; sales; manufacturing and distribution; quality control; credit; administration; public relations, advertising and sales promotion. In addition there are certain staff functions, including the legal department and a specialized administrative function.

Top management includes: President (J. J. O'Connor); executive vice president and treasurer and director of the accounting division (M. D. Livengood); vice president (Clair D. Becker); vice president of research and development and director of the research division (Dr. Damon V. Catron); assistant to the president (John L. Bunce); secretary and director of the personnel and administrative division (C. C. Hansen); general sales manager and director of the sales division (Eldo H. Meyer); assistant general sales manager and director of sales training (Charles A. Swisher); credit manager and director of credit division (F. J. Becker); director of manufacturing and transportation division (Thomas J. Hoover); director of quality control division (James G. Pierce); director of public relations and sales promotion division (Jack Bergstrom); administrative assistant (William G. Cook); legal counsel (Dick L. Jensen).

In all divisions and responsibilities, said Mr. Kelloway, the basic princi-

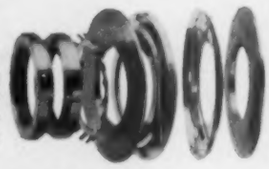
LEADERSHIP through RESEARCH

Leadership through design research has always been the keynote at Landers. From the inception of the business in 1938, through today, the Landers companies have always forged ahead searching for better products at less cost.

Landers has long been known as a leader in the gigantic feed industry field. From the revolutionary Dimple-Faced Roller, through the all new Grease Seal Collar, Landers has developed, tested and marketed the better and less expensive ways to produce feed.

The development of the Block-Matic as a fully automated range block press has drawn interest and inquiries from practically every country in the world!

Landers has never been content to simply manufacture the needed parts or machines that have long been standard in the industry. This looking ahead with the engineering, installation and parts service to back up new products is why you can be better served by Landers.



GREASE SEAL COLLAR

No press needed to assemble this all new seal. No felt or leather pads. Only the 35c metal safety seal gets the wear.

developed January, 1961

BLOCK-MATIC PRESS

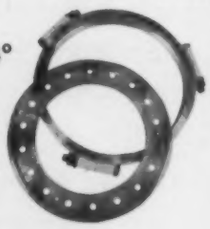
The FIRST fully automatic single cylinder range block press. Synchronized automatic loading of ingredients from scales permits one man operation. Automatically ejects 300 molded range blocks (8½" x 8½" x 11½") every hour.

developed July, 1960

3 PIECE DIE CLAMP and 45° DRIVING RIM

Eliminates the 8 studs on standard die housings that break so easily. Saves hours of downtime. 45° driving rim prevents spread of clamp legs.

developed June, 1959



SNAP-ON FEED CONE

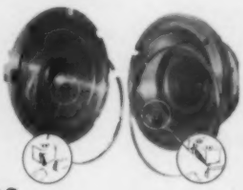
The cone and special wrench will save many dollars through less downtime. Can be removed and reinstalled in seconds . . . and with less initial cost.

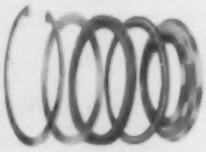
developed June, 1959

SNAP-IN KEYLOCK BUSHINGS

Saves 75% of die assembly maintenance cost . . . practically eliminates downtime. Bushing absorbs the wear and is easily replaced in 15 minutes. PAT. #2,994,918

developed January, 1959





SNAP-IN GREASE SEALS

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Testing by Pfizer, the feed industry, colleges, and on many hog farms has shown the recommended level of Taomyxin to be 2 grams of oleandomycin to 8 grams of oxytetracycline wherever increased performance is of prime importance.

During periods of high disease risk, the product of choice is still Terramycin** alone at high levels—it's the proven superior disease-fighting antibiotic.

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*Oleandomycin and oxytetracycline
**Brand of oxytetracycline—Reg. U. S. Pat. Off.

The following summary shows the average of test results comparing Taomyxin with antibiotics used alone or in combination:

	Control†	Taomyxin
GROWTH		
Number of trials	12	12
Number of pigs	694	669
Av. daily gain—lbs.	1.38	1.48
Increase over controls—%	—	7.25%
FEED EFFICIENCY		
Number of trials	12	12
Number of pigs	694	669
Lb. feed/lb. gain	3.70	3.62
Improvement—%	—	2.20%
ECONOMICS††		
Cost per cwt. gain	$11.951	$11.761
Savings per cwt. gain	—	.190
Savings per pig (180 lbs. gain)	—	.342
Savings per 100 pigs	—	$34.20

†Other antibiotics and combinations of antibiotics.
††Cost of antibiotic supplements included.

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ple must be: "What can we do to better serve our customers?"

PRODUCTS—Much of the emphasis in the company's feed sales and service is on programs. A new swine feeding program was introduced in the fall of 1960. Recently a new "life cycle" dairy feeding program was introduced, and more growth in dairy feed business is anticipated. Improvements in the beef feeding program also were announced.

The company makes a full line of feeds, but emphasis has been and continues to be on livestock feeds as compared to poultry feeds.

The company advocates complete feeds in the cases of the most critical feeds for swine and poultry, but supplements account for most of the company's business. And by far most of the feed is pelleted.

In the swine feed line, the prestarter and starter are complete feeds. Grower feeds may be either complete or in supplement form. The product for finishing is a supplement.

In some instances, a larger feeder may wish to provide at least part of his own protein as well as carbohydrate, and the company is in a position to provide super-concentrates or premixes as well as conventional supplements.

The company's livestock feed and livestock feeding programs are based almost entirely on the concept of free choice feeding or combining of supplement and grain and/or roughage right on the farm. For example, many of the swine feed customers feed free choice. Others may grind and mix supplement and grain on the farm. In some instances in livestock feeding, the farmer may combine shelled corn and pelleted supplement in a simple way, as in a feed wagon.

In general, one executive observed, concentrates and supplements are as concentrated as possible. For example, the supplement for beef feeding originally was one to be fed at the rate of 2 lb. per head per day. Later, the company went to a supplement fed at the rate of 1 lb. per head per day.

Mr. O'Connor said that the company is in a good position to adjust to any changes. Many of the concentrates, he said, are now near the super-concentrate status, and any adjustments in types of concentrates can be made. "We are in a position to serve a customer with any type of feed product desired or needed," he commented.

So far as farm mixing is concerned, Walnut Grove does not look for most farmers to invest in complex and expensive machinery and equipment for farm processing. And it is expected that most livestock feeders will continue to feed free choice or use a relatively simple method of combining supplement and home-grown feedstuffs on the farm.

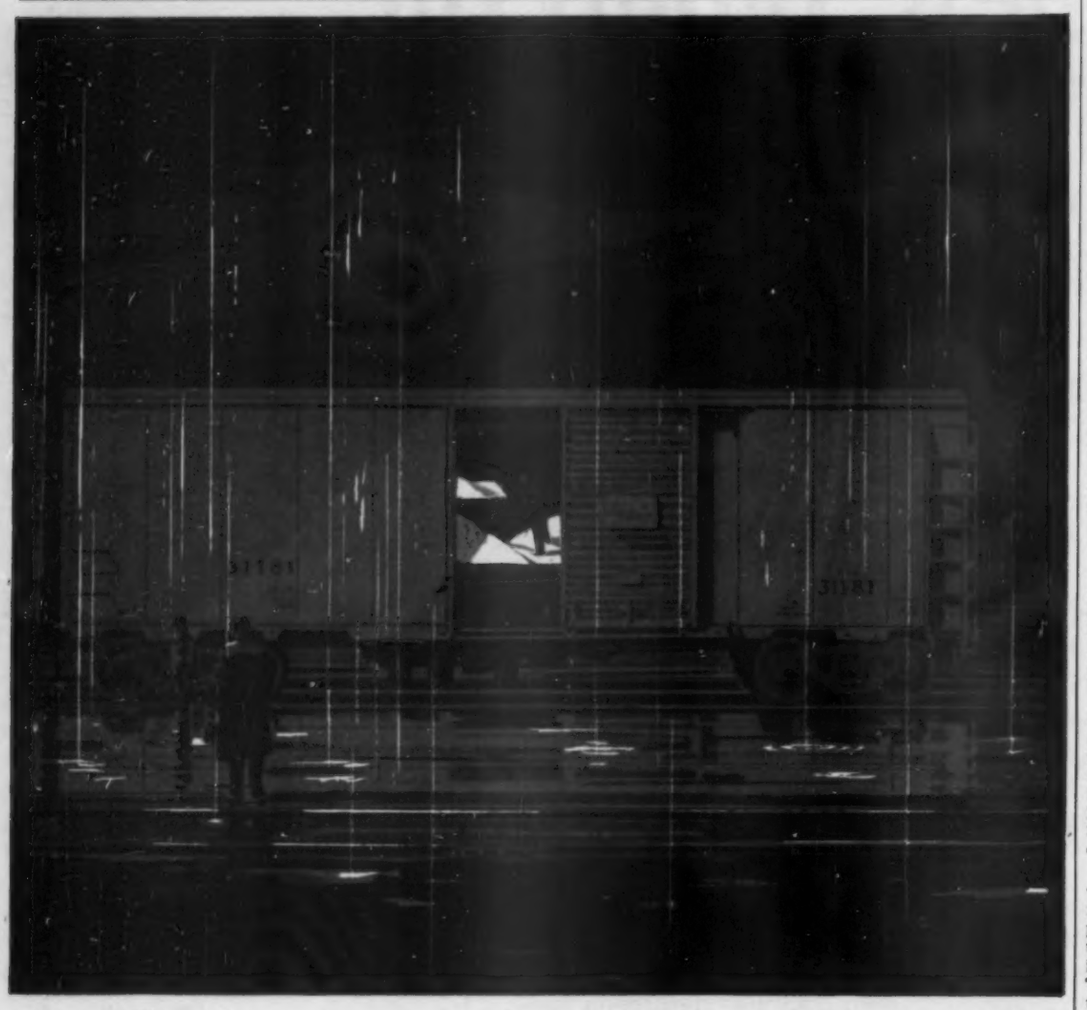
In general, the idea of grain banking and custom mixing is discounted by this company. The firm has had a pilot grain bank but has added no more such facilities. Presumably farm storage for grain is no major problem among its customers.

Mr. Kelloway said that when the company went into the supplement business, the idea was to build a supplement based on what research said should be in it and then have one line and one price. He emphasized that the company "sells feeding programs and has one price line of feeds."

Mr. O'Connor said that emphasis is put on quality feeds, feeding programs and the results obtained by producers through the products and services provided by the company, not on feed price. "Our feeds and programs have to do the job for the farmer on an economic basis," he commented.

The company's trade name, "4 x 4," was adopted when the firm moved from strictly mineral feeds into complete supplements. The name is now used on all products, but originally, it was based on swine supplements. There were four basic nutrients in the new feed—protein, mineral, vita-

(Turn to **WALNUT GROVE**, page 80)



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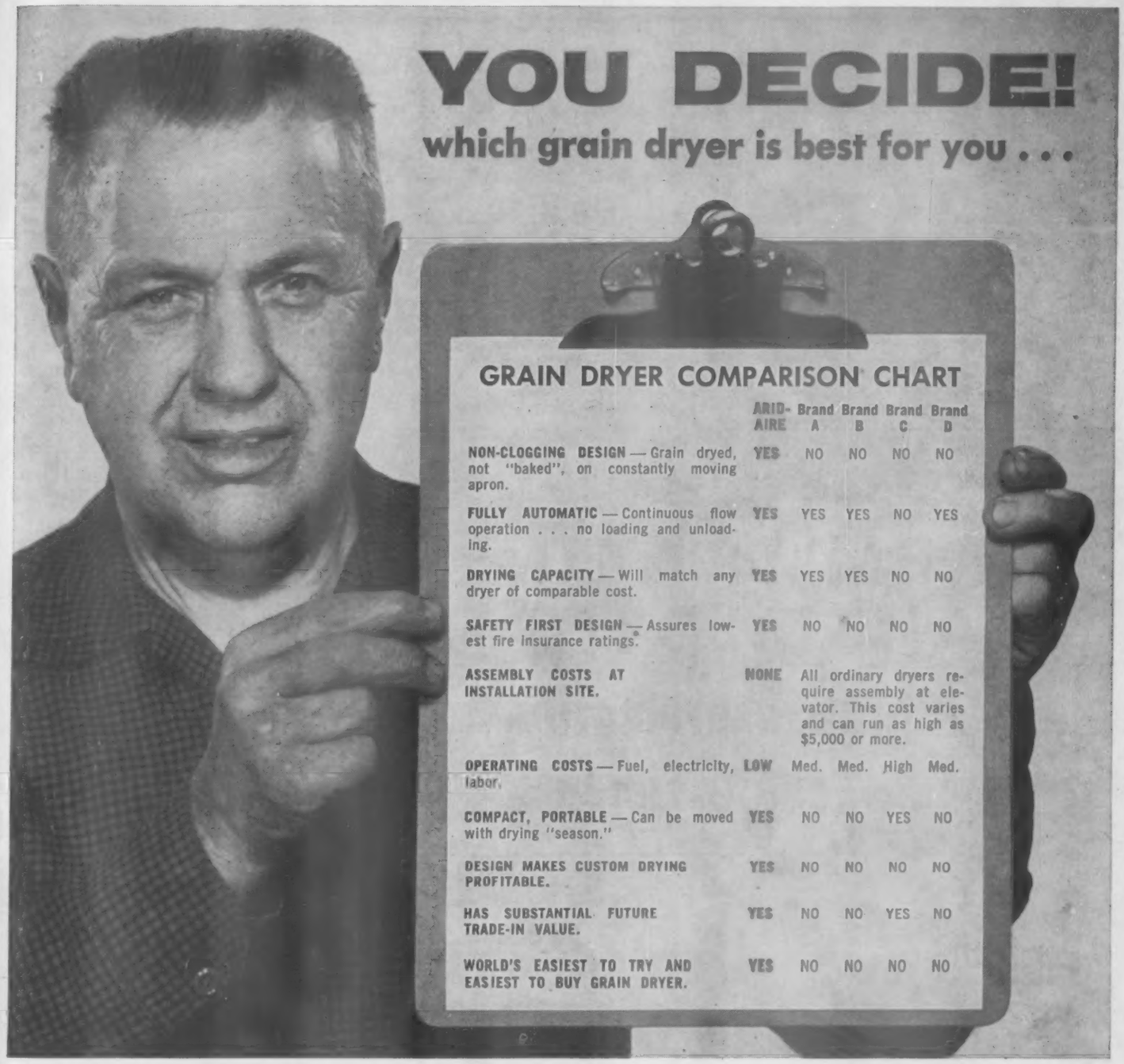

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FULLY AUTOMATIC — Continuous flow operation . . . no loading and unloading.	YES	YES	YES	NO	YES
DRYING CAPACITY — Will match any dryer of comparable cost.	YES	YES	YES	NO	NO
SAFETY FIRST DESIGN — Assures lowest fire insurance ratings.	YES	NO	NO	NO	NO
ASSEMBLY COSTS AT INSTALLATION SITE.	NONE	All ordinary dryers require assembly at elevator. This cost varies and can run as high as $5,000 or more.			
OPERATING COSTS — Fuel, electricity, labor.	LOW	Med.	Med.	High	Med.
COMPACT, PORTABLE — Can be moved with drying "season."	YES	NO	NO	YES	NO
DESIGN MAKES CUSTOM DRYING PROFITABLE.	YES	NO	NO	NO	NO
HAS SUBSTANTIAL FUTURE TRADE-IN VALUE.	YES	NO	NO	YES	NO
WORLD'S EASIEST TO TRY AND EASIEST TO BUY GRAIN DRYER.	YES	NO	NO	NO	NO

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IDEAS TO HELP YOUR CUSTOMERS

More Grain for Heifers

Feed men might do well to advise their dairy feed customers of the fact that when two and three-year-old milking heifers are not fed enough grain they will keep milk out of the pail to meet their body needs for growth.

It is the old story of self-preservation, according to Dr. R. S. Adams, dairy husbandry department, University of Pennsylvania. "In many respects the udder of the cow can be considered a 'parasite,'" he said. "That's because producing milk beyond the needs of nursing the young is a man-made or developed characteristic, resulting from years of breeding and selection."

A well grown-out two-year-old heifer has about 20% of her growth still ahead of her at first freshening. Three-year-olds also have considerable growth ahead of them. Thus, these milking heifers need nutrients for growth, as well as for maintenance of their body and milk production.

Dr. Adams believes growth needs can best be met by feeding two-year-olds 3 to 4 lb. of grain per head daily beyond their production requirements. Three-year-olds should be fed 1 to 2 lb. of extra grain. Assuming that a mature cow needs 10 lb. of grain daily to produce 40 lb. of milk, a two-year-old producing the same amount should be fed 14 lb. to meet both growth and production requirements.

Dr. Adams said feeding heifers for growth as well as production may result in an increase of as much as 2,000 lb. of milk per head in one lactation.

◆

Proper Egg Cleaning

Proper egg cleaning to minimize spoilage can make or break egg producers, warns D. D. Jackson, Purdue University poultry specialist.

Many egg processors are concerned with the quality of eggs they are receiving, says Mr. Jackson. The eggs may be clean on the outside, but inside, problems exist. Processors feel that eggs not properly cleaned result in internal spoilage which is not a serious problem with dry, nest-clean eggs, he asserts.

Bacteria, not washing, cause spoilage, the Purdue scientist explains. The organisms can very easily get inside an egg.

Washing is successful only when bacteria aren't added to an egg during the washing process. Research has shown that eggs can be washed without causing spoilage or quality loss, Mr. Jackson says.

The Purdue staff member gives these tips on how to avoid spoilage and wash eggs properly:

Produce as few dirty eggs as possible. Eggs are warm when laid, and cooling of moist eggs tends to draw bacteria inside their shells. To minimize bacteria present, clean nests are essential for clean eggs.

Wash dirty eggs. Why expose eggs already clean to possible danger?

The most practical time to wash is the day the eggs are laid.

Keep the wash water warmer than the eggs at all times. Warmer water causes material inside the shell to expand. The resulting pressure keeps bacteria and water on the outside. Water temperature of 105 to 110° is recommended.

Change the water often. Dirty water destroys the value of the sanitizer.

Use approved detergent-sanitizer in the water. The only compounds which now appear suitable are quaternary ammonium germicides or chlorine compounds.

And finally, don't use a household detergent and add a sanitizer.

Remember, nature provides a cover seal over the entire shell. Washing removes this protective seal. Therefore, it must be replaced with a germicide or sanitizer to prevent bacteria from entering the egg.

◆

Time for a Trim

By trimming a sheep's feet in the fall, the sheepman can avoid having his animals come down with foot rot. South Dakota State College animal husbandmen say that trimming is important both for prevention and treatment of foot rot.

They advise examining the feet of all the sheep. Trimming with a pruning shears is recommended if there appears to be something wrong.

The organism causing foot rot

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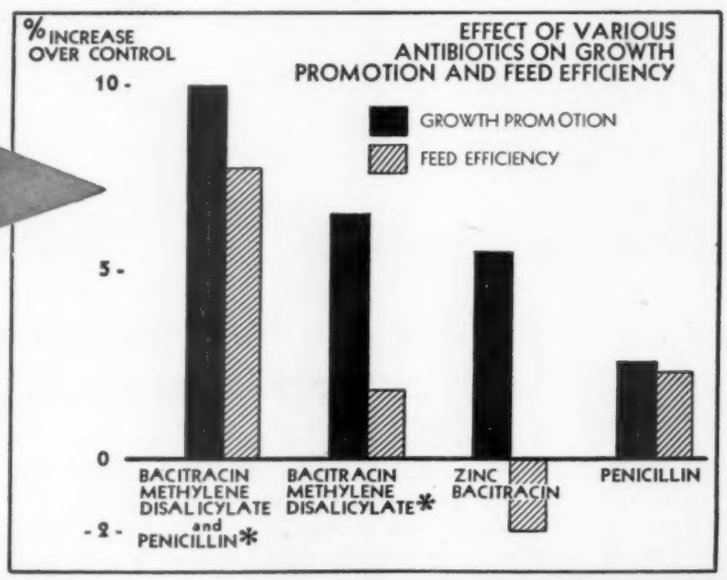

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SELLIN' SAM — By Jim Zilverberg

"And make darn sure that sneaky feed salesman doesn't get back in the plant!"

spreads in mud, so avoid having mud around lots is advised.

After the trimming operation, the South Dakota specialists recommend that the infected sheep be walked through a foot bath containing a saturate solution of copper sulfate two or three times a week.

◆

Darkened Poultry Bones

Feed men can be of assistance to their good customers, the poultry growers, by dispelling fears some persons have about the darkened bones and meat near the bones of poultry.

That the meat was not cooked sufficiently, that the bird was spoiled or that additives had been fed the poultry are not the reasons.

Bone darkening in poultry is a "sign of the times," according to S. F. Ridlen, University of Illinois poultry specialist. He said that modern research has developed rations that produce tender broilers and fryers in record time—about nine weeks. He said that bones of chickens only nine weeks old have not completely calcified or hardened, and this condition liberates the hemoglobin in the blood when the young broilers and fryers are frozen and thawed.

The hemoglobin leaks through the spongy bone wall, discoloring the bone and the meat surrounding the bone. Cooking changes the hemoglobin's red color to various shades of reddish brown.

Mr. Ridlen assures that bone darkening does not affect the quality, aroma, flavor, texture or even the taste of meat—just its appearance.

"So," he says, "until scientists devise a method to stop bone darkening, just shut your eyes next time you chew on a darkened drumstick."

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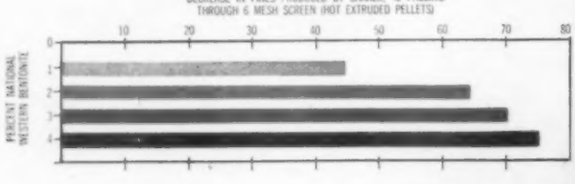

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When the mill is operating at maximum or constant feed rate, the addition of NATIONAL Western produces harder pellets—and far fewer fines—with less power consumption. Note on the chart shown here the drastic decrease in fines achieved by varying percentages of NATIONAL Western Bentonite in the feed formula.

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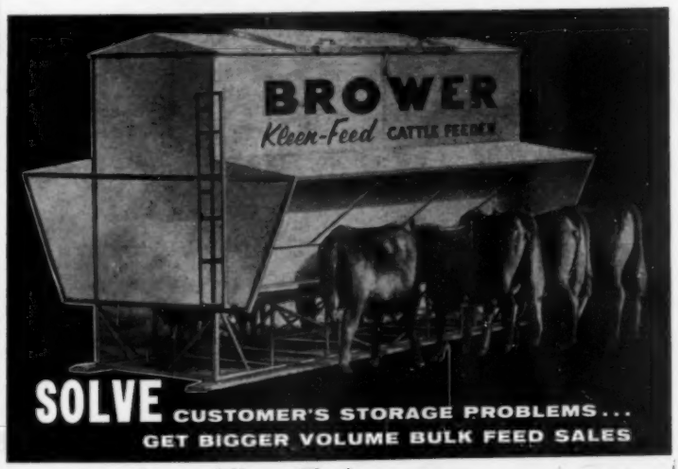

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Putting Research To Work

BY SPENCER H. MORRISON, PH.D., D. V. M.

Phosphorus Requirements of Growing Rabbits

● L. G. Mathieu and S. E. Smith, Cornell University, Journal of Animal Science, Vol. 20, No. 3, pp. 510-513, August, 1961.

ABSTRACT AND COMMENT

Only rather limited data are available concerning the phosphorus requirements of rabbits and the data secured up to this time has been based upon the use of low-P forages as the basis of the diet. Matrone et al. (1954), using low-P soybean hay for rabbits, demonstrated that ones receiving a ration of 0.11% P made more rapid gains, had higher serum inorganic P in the blood, and had stronger bones than those on a 0.08% total P diet. Similarly, Heinemann and associates (1957) used alfalfa hays containing 0.12% and 0.26% as 86% of the basal rations tested. The use of the low-P hay retarded growth rate, impaired breeding efficiency and produced fragile bones with abnormal ossification.

The Cornell workers have now used a total of 104 New Zealand White rabbits to define more closely the P requirements for growing rabbits. A semi-purified diet technique was employed utilizing the following diet: Prairie hay (low P), 40%; beet pulp, 20%; blood fibrin, 13%; cerelose, 13%; molasses, 10%; corn oil, 3%, and vitamin A and D oil (2250 I.U. vitamin A and 300 I.U. vitamin D per lb.), 1%. The rabbits used in the trial were purchased from a commercial source at five-six weeks of age, and on arrival at the university were fed a ration of good quality alfalfa hay. Over a period of approximately seven days they were shifted gradually onto the pelleted experimental diets. The basal diet contained 0.07% P and the various desired phosphorus levels were obtained by adding dicalcium phosphate (C.P.) to the basal ration.

Experiment 1 consisted of three phosphorus levels (0.07, 0.14, and 0.28%) involving the use of 32 female rabbits divided into three groups of 12, 10 and 10, respectively. This trial lasted for 45 days. Experiment 2 consisted of five treatments (0.07, 0.17, 0.22, 0.28 and 0.32% P) fed for 52 days. Four females and four males were randomized for each treatment. All experimental subjects were individually housed and in each experiment four individuals of each treatment group were housed in metabolism cages and their total feed intake and feces and urine excretion measured. At the end of the test periods, all rabbits were killed and the left femur was removed, disected free of soft tissues and the bone ash P content determined. Density of bones and breaking strengths were also secured.

The results clearly indicated that, under the experimental conditions employed, a P level below 0.14% was inadequate in experiment 1. Furthermore, the animals on the highest level gained significantly more than those on the 0.14% level. Using gain data, only, 0.17% P was significantly better than the basal 0.07% level of P, with no further gain response from higher levels of P. Very slight indications are shown from some of the other experimental criteria that 0.22% or higher would be nearer the actual P requirements, but statistical analyses of the data actually fails to show this supposition. The authors have concluded, however, that 0.22% approximates the minimum requirements for P under the conditions employed. They also state that "it will be recognized that the P requirement here established is in terms of the P compounds present in the diet, 68% of which was from dicalcium phosphate and the remainder from organically-bound or so-called phytin phosphorus. The P of dicalcium phosphate has been shown to be highly available for all animals so far studied, although specific studies with rabbits have not been published. The P of organically-bound compounds differs in availability with species, being highly available in ruminants and poorly available in non-ruminants. In the absence of published data, we can only assume that rabbits fall in the latter category."

Actually, I (SHM) cannot agree with the assumption that rabbits fall

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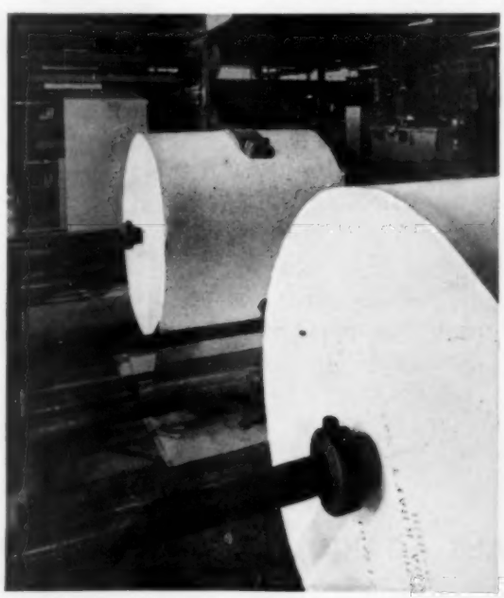

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into the non-ruminant category, since they are able to utilize large amounts of roughage in the diet because of the peculiar intestinal development. Furthermore, the P requirement demonstrated by the experimental diet is much closer in range to that for ruminant animals than it is for non-ruminants. Of course, it may be argued that rabbits would have little or no absorption of minerals from the enlarged cecum but as yet no one has proved this point as far as rabbits are concerned.

Another feature of this work which needs critical evaluation is the fact that the animals were housed in cages with a wire mesh bottom, so that relatively little opportunity existed for the rabbits to re-ingest their food. Of course, this is good experimental procedure and is the only way to define requirements accurately, scientifically speaking. But, the fact remains that under commercial conditions, rabbits re-ingest part of their food, when they are unobserved. Many commercial men are completely unaware of this practice by rabbits, and some have called this "pseudo-rumination." Only the soft matter that has passed through the digestive tract is reingested, but it is entirely logical to suspect that under commerical conditions the actual P requirement of rabbits is considerably less than demonstrated in this carefully controlled scientific experiment.

The 1954 report of the subcommittee on rabbit nutrition gives no requirements for minerals for rabbits. Based on all the available evidence, it is my guess that the actual P requirement for most rabbits kept under commercial conditions is between 0.12 and 0.17% total P in the ration, a level which is easily met by most commonly fed ranch rations, since most contain in the neighborhood of 0.5% total P or more, in the presence of approximately 1.0% Ca. No one should attempt to formulate commercial rations with such low levels of P as estimated above, and adequate calcium is assumed to be present in arriving at such an estimation. Further work needs to be done on both the Ca and P requirements of rabbits, in the presence of varying levels of vitamin D in my opinion.

●

Timely and Worth Noting

Little information up to now has been available as to the requirements of grazing steers vs. those confined in drylot, etc. This is simply because such data is extremely hard to obtain. At best, only estimates have been secured of such requirements and most investigators have believed that the energy requirements of grazing animals logically would be higher than confined ones due to the energy expenditure involved in grazing.

Woodman (1957) estimated that grazing dairy cows required a greater energy need (starch equivalent basis) than those fed in the barn or drylot. Similarly, Reid et al. (1958) estimated that grazing dairy cattle required 3.4 lb. more TDN per day than those confined to the barn. Greenall (1959) suggested that grazing wether lambs required larger amounts of energy than commonly advised in most feeding standards.

Using both body composition and forage intake data the California group (Kromann et al., Jour. Anim. Sci., 20, 3, 450) has compared the energy requirements of steers grazing irrigated orchardgrass - Ladino clover pastures with similar ones fed the same forage as soilage in a small drylot. Even though various degrees of grazing intensity produced variations in energy gain and digestible energy intake, it was concluded that there was no difference between the maintenance requirement for digestible energy between the steers fed soilage in the small drylot and those grazing the pasture. Furthermore, comparisons between the regression equations secured on the digestible energy requirements of the pastured steers and those fed in drylot demonstrated no significant differences. Thus, this data suggests that the extra activity involved in grazing on irrigated pasture does not result in a measurable increase in digestible energy requirements. As can be seen, this is somewhat different than the limited data secured by others with other ruminants. It is entirely possible that the quality of forage may greatly influence the results. If the forage is irrigated and of good quality, such as was used in this trial, the animals may satisfy their energy needs quickly and with little or no additional expenditure involved in grazing. On the other hand, if the forage is not as lush or non-irrigated, expenditures of energy involved in grazing might be considerable in my opinion. Thus, the divergent results of the investigators have to be considered in the light of the type and quantity of forage readily available to the animals. Under many range conditions, theoretically it would seem that energy requirements would be higher than for those animals confined to drylot or barn-fed. We certainly need more data of this nature before we can define the energy needs of grazing ruminants.

Direct to the Farm Movement to Grow, G.L.F. Manager Says

SYRACUSE, N.Y.—"Vast changes" in marketing was the topic of E. H. Fallon, general manager of Grange League Federation, as he addressed 2,500 members attending the group's 41st annual meeting here.

He said that the trend of direct product movement to the farms, bypassing intermediate installations, will continue and should accelerate.

As an example, he cited mill-to-farm feed supplies. He said that this tonnage has grown from 19,000 tons five years ago to 155,000 tons in the G.L.F. fiscal year ended June 30.

Mr. Fallon also cited the fact that rapid transportation has expanded trading areas and, at the same time, the number and complexity of services required by farmers has greatly increased, requiring a bigger volume of business to support them.

He said, "The result has been a decline in the number of G.L.F. stores as small units are merged into larger, more efficient operations. It requires a large, well-equipped store to provide the many services called for by the modern farmer."

Mr. Fallon also said that farmers must build strength in marketing if they are to raise their net income.

He said an intensive study over three years covering food marketing by the G.L.F. has developed several principles of building a sound marketing organization. The general manager of the cooperative owned by more than 117,000 New York, New Jersey and Pennsylvania farmers stated that the steps necessary to obtain an effective position are: An assured supply of raw product, investment in the business by the farmers who grow the food, research to develop new food products and strong sales and promotion programs.

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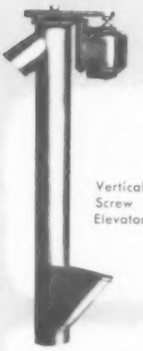
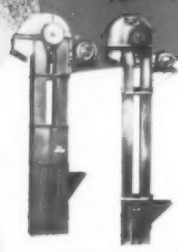


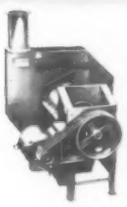
Vertical Screw Elevator



Bucket Elevators

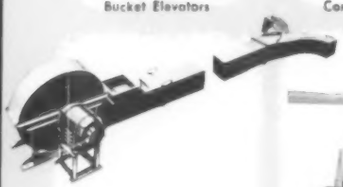
Corn Cutter and Grader with Aspirator

Vertical Feed Mixer ½ to 5 tons and larger

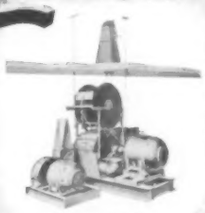


Corn Sheller

Chain Drag in double and single geared types



Forced Air Carloader with motor or belt drive



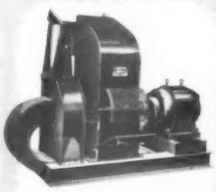
Remote Change Hammermill

Twin Molasses Mixer

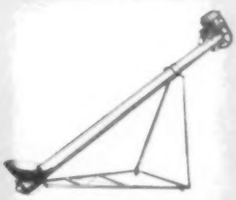
Corn Scalper with or without air cleaner

Clean-Flo Conveyor

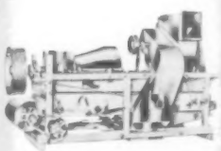
Electric Truck Hoist cuts handling costs



Instant Change Hammermills 12", 16", 20", 24" sizes



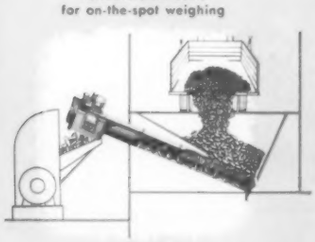
Portable Screw Elevator



Combined Sheller-Cleaner

Finger Type Corn Crusher and Feed Regulator

Portable Bulk Scale for on-the-spot weighing



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☐	Twin Molasses Mixer	3
☐	Clean-Flo Conveyor	
☐	Vertical Screw Elevator	4
☐	Portable Screw Elevator	
☐	Bucket Elevator	5
☐	Pit Auger	
☐	Corn Crusher—Regulator	6
☐	Corn Sheller	
☐	Portable Bulk Scale	7
☐	Truck Scale	
☐	Combined Sheller-Cleaner	
☐	Gyrating Cleaner	
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☐	Corn Cutter and Grader	
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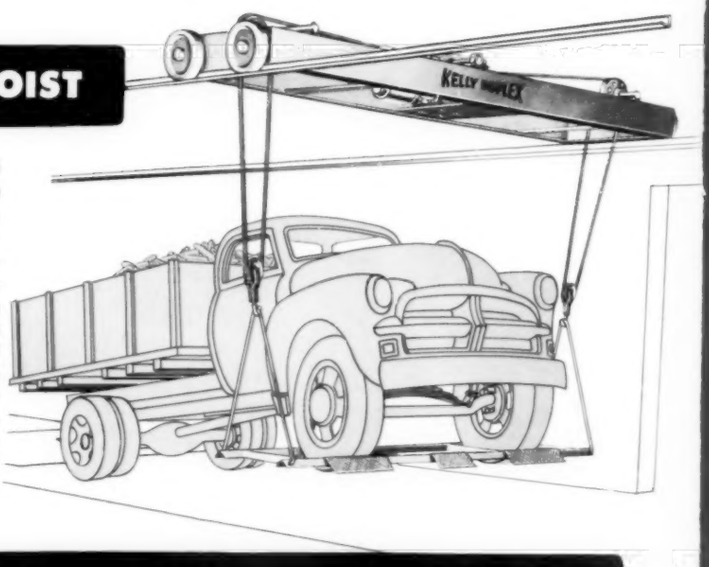
Designed to unload trucks in less time and with less power . . . and ruggedly constructed to assure trouble-free performance and long life . . . the Kelly Duplex Electric Truck Hoist brings top speed, efficiency and economy to your grain handling operation.

All welded steel construction, tough steel cable, heavy duty motor and special gearing combine to lift loads with absolute ease and safety. Positive action switch controls all raising and lowering —lifts truck to any height up to 15 feet, stops operation instantly at any point, holds truck at desired angle for any length of time. The entire hoist moves freely on an overhead steel track (so flanged that wheels cannot "jump the track" regardless of stress) . . . can easily be positioned for unloading into any number of dump sinks. Available in any width and powered to meet your requirements, this machine can be furnished with either a ramp or a mat type cradle. Mail card today for full details.



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Kelly Duplex Double Chain Drag with variable speed control

As grain dump drags . . . as conveyors . . . as feeders for hammermills, corn shellers or other machinery—Kelly Duplex Chain Drags are unsurpassed for steady, even delivery of grain and ear corn. Single chain drags have V-trough construction—choice of wood or steel box. Double chain drags are made entirely of welded steel—are available with 12", 16", 20" or 24" wide beds. All drags can be made in any length with either single or double gear reduction . . . can be powered by motor or belt drive . . . and can be furnished with variable speed control. Mail card for full details.

Chain Drag or Pit Auger with Automatic Motor Control

. . prevents overloading of hammermill-improves efficiency

An automatic motor control that prevents a hammermill feeder from causing ampere fluctuation on the hammermill is available at extra cost on Kelly Duplex Chain Drags and Pit Augers. This control connects to both the hammermill motor and the feeder motor. If the hammermill motor begins to show an overload due to excessively rapid feeding—the motor on the feeder ***automatically*** stops until the load passes—then ***automatically*** starts again.

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Dr. J. E. Johnson J. W. Britton

Dr. Johnson Named Dow Department Head

MIDLAND, MICH.—Dr. Julius E. Johnson, director of agricultural chemicals research for the Dow Chemical Co., has been named manager of the company's agricultural chemicals department.

Herbert D. Doan, executive vice president of Dow, said Dr. Johnson's new responsibilities will include overall direction of research, development and product planning activities related to Dow Chemical's interests in the agricultural field.

Dr. Johnson succeeds J. W. Britton, who has headed Dow's agricultural operations since 1949. Mr. Doan said that, for the next year, Mr. Britton will serve on special assignment in executive research. During this period, Mr. Britton will report to Dr. R. H. Boundy, Dow vice president and director of research.

Dr. Johnson joined Dow's biochemical research department as a research chemist in 1943. He was promoted to assistant director of the department in 1951 and was named to head agricultural research in 1953. He has made noteworthy research contributions in the areas related to amino acids and to the control of animal parasites. Dr. Johnson is a graduate of the University of Colorado and holds a doctorate from the University of Illinois.

Mr. Britton joined Dow in 1923. He served with the organic laboratory, the coumarin-salol, benzoic acid and phenacetin plants and as a production "trouble shooter." He became superintendent of the organic semi-plant in 1934, holding this post until his appointment in 1944 as a departmental production manager. He relinquished this post in 1949 to head Dow's agricultural chemicals department.

A native of Rockville, Ind., Mr. Britton studied at the University of Illinois and received his A.B. and M.S. degrees from the University of Michigan. Prior to joining Dow, he taught chemistry at the University of Illinois, University of Michigan and Miami University, Ohio.

FEED FIRM SUES RAILROAD

BURLINGTON, VT.—The H. K. Webster Co., Lawrence, Mass., has filed a $15,000 suit against the Rutland Railway in U.S. District Court at Burlington. The Webster company, a feed firm, claims it hired the railway to deliver five carloads of grain to the R. J. Naylor Co., Brandon, and that the railroad was to collect $11,557 for the shipment. The feed was delivered, but no payment was collected, according to the plaintiffs.

Receive Poultry Congress Papers

SYDNEY, AUSTRALIA—More than 50 abstracts and 17 complete scientific papers have been submitted by American poultry workers for presentation at the 12th World's Poultry Congress Aug. 10-18, 1962, in Sydney.

A papers sub-committee headed by Dr. H. R. Bird, University of Wisconsin, is selecting suitable papers for forwarding to the Congress organization.

A poultry science travel grant has been awarded to Dr. Donald de Fremery, Western Regional Research Laboratory, California, for his paper, "Post-mortem Chemical Changes Related to Physical Changes in Chicken Muscle."

Dr. F. H. Wilcox, University of Maryland, has been awarded the August Hanke travel grant for his paper entitled, "Serum Alkaline Phosphatase and Egg Production."

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What's the secret? Simply the inclusion of 5% stabilized animal fat in a high energy feed ration. In addition, this fat fortified formula boosted egg production more than 10% in normally poor winter months . . . smoothed out the peaks and valleys common with ordinary rations.

Results like these are not surprising when you consider that animal fat contains 2½ times as much digestible energy as any other common feedstuff . . . aids more rapid assimilation and complete conversion of vitamins and other nutrients . . . reduces feed dustiness . . . increases feed palatability.

Your local renderer can give you complete details on tests like this, as well as other research information which shows the way to more weight gain, lower costs per pound of gain, and increased growth rate of poultry, hogs, and cattle, too! Let him show you how to improve your feed results with stabilized animal fats, meat meal, meat and bone meal, poultry by-products, feather meal, and other products of today's scientific rendering industry.

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Feed manufacturers, emphasizing importance of stress feeding and offering formula feeds containing Aureomycin to meet the need, build volume on all hog feed sales

Vaccination, weaning, worming and handling *needn't* set pigs back, reduce weight gains and lead to outbreaks of enteritis.

And *won't*. Not if these operations are spaced out and pigs get the right kind of feed before and after weaning.

This means stress feeding—use of good formula feeds containing 50 to 100 grams of AUREOMYCIN® per ton.

What manufacturers recommend

Many feed manufacturers are strongly recommending increased use of stress feeds. Here's what they do:

First, they offer a complete starter feed containing 100 grams of AUREOMYCIN per ton as an integral part of their hog feeding programs. This starter feed is fed for at least a week past weaning.

Second, they invite new customers by offering a special conditioner feed containing 50 to 100 grams of AUREOMYCIN per ton to be fed during the critical period. Outstanding results from this conditioner feed persuade producers to go on the manufacturer's complete hog feeding program—and this leads to increased sales volume.

Aureomycin maintains weight gains

The excellent results obtained by feeding AUREOMYCIN through the stresses of weaning and vaccination are clearly shown in the chart on the opposite page. Observations on the vigor, appetite and temperature response of pigs on AUREOMYCIN indicated less reaction to vaccination than was evident in pigs receiving no AUREOMYCIN. Note that pigs fed AUREOMYCIN over the 44-day period averaged approximately 23 pounds more than those not fed AUREOMYCIN.

If you do not at present recommend the use of a starter containing 100 grams of AUREOMYCIN or a conditioner feed containing 50 to 100 grams of AUREOMYCIN, plan to do so. Boost gains and profits for producers and yourself. American Cyanamid Company, Agricultural Division, Princeton, N. J. ®*AUREOMYCIN is American Cyanamid Company's trademark for chlortetracycline.*

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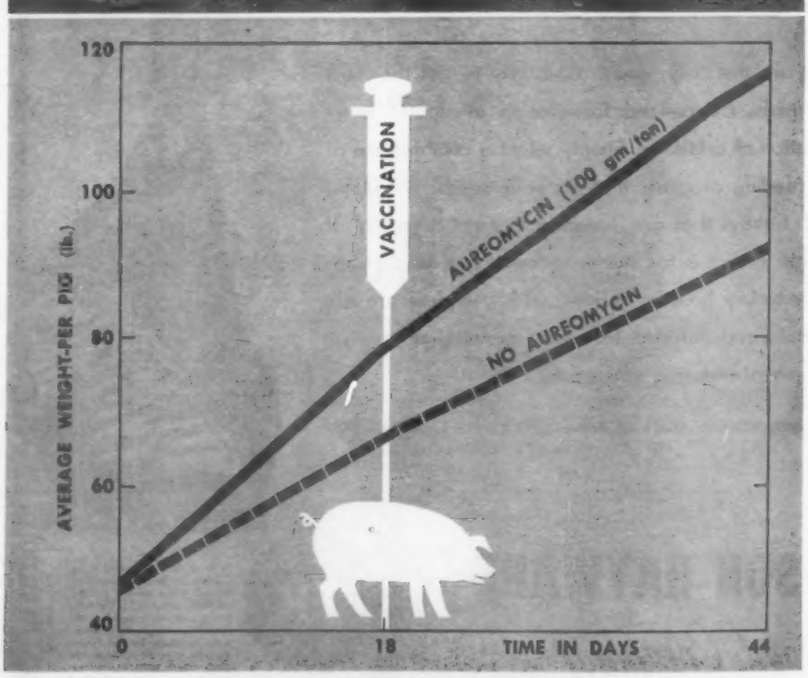
Vaccinating against hog cholera with ROVAC® Hog Cholera Vaccine is an essential step in the Cyanamid Coordinated Feed-Health Program for hogs.

Vaccination against hog cholera always causes an unseen reaction in pigs. The number of white blood cells drops sharply. As far as scientists know at present, this is a necessary part of immunization.

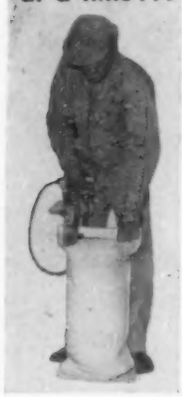
Vaccinated pigs are very susceptible to other infections for a week or so, perhaps because of this white blood cell drop. Pigs on a stress feed containing AUREOMYCIN are protected during this period when their resistance is down. AUREOMYCIN keeps out bacterial infections and increases weight gains. It does not interfere with the production of immunity.



The chart above shows the effect of feeding AUREOMYCIN on the gains of pigs through the stresses of weaning and vaccination. The pigs were 6 to 12 weeks old at the start of the experiment (0 day) and were vaccinated with ROVAC for hog cholera 18 days later. Pigs fed AUREOMYCIN throughout the critical period had less vaccination reaction and gained approximately 23 pounds more. (Based on a study at Ohio Agricultural Experiment Station.)

On production line...

or one at a time...



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First National Broiler Council Seminar Gets Southeast Retailers' Approval

ATHENS, GA.—Officials of seven of the leading chains and supermarket organizations in the Southeast states voiced strong approval of the first of four scheduled National Broiler Council retailer merchandising seminars. The initial meeting, held at the Center for Continuing Education, University of Georgia, attracted some 60 persons with more than a third of the participants directly involved in retailer operations.

In his opening remarks, Joe Frank Sanderson, NBC president, explained the dual purpose of these sessions was to "foster a warm working relationship with the retail food industry, and to sell more chicken more profitably."

Harry C. Faucette, general meat buyer, Colonial Stores, Atlanta, outlined to the poultry suppliers present, five areas in which he expected them to meet his needs: Quality, service, packaging, price and dependability. Mr. Faucette pointed out that the list was not necessarily in the order of preference and, as far as he was concerned, his present suppliers were meeting all of these requirements.

Lloyd M. Screws, general manager, Buehler Supermarkets, Atlanta, told those present, perhaps they would give more thought to the merchandising of component parts such as backs and necks. Mr. Screws pointed out that his stores were quite successful in merchandising tray pack chickens from a service case packed with flaked ice.

James Evans, Georgia Broilers, Inc., Gainesville, told the retailers that he thought the time was getting close when the majority of processors would be pre-packaging broilers. However, he reminded them that most retailers are not yet ready for this.

Mr. Sanderson, Sanderson Farms, Laurel, Miss., voiced a request that he would like to become a part of his retailer customers' "family." He would particularly like to be in closer communication with his retailer customers, so that his product plan could be worked out more evenly. Mr. Sanderson felt that if he was posted in advance on sales plans that point-of-sale aids and other merchandising assistance could be offered the retailer to help him sell more.

Frozen vs. Fresh

In the morning session there was a retailer discussion on the merits of both frozen and fresh poultry. John Hannon, meat merchandiser, Greenville division, Winn-Dixie Stores, related his company's recent experience with frozen broiler fryers. "Five months ago, we introduced frozen tray pack into our stores. During this period sales of frozen broiler fryers increased 5% over total fresh sales during the same period the year before. However, 15% of total chicken volume was still in fresh form so that, actually, frozen sales were up about 20%."

In the Winn-Dixie operation, all sales are made from the fresh meat display case. Ordering and handling of frozen is exactly as it was when fresh was being sold. Mr. Hannon pointed out that while his organization had considered a consumer education program on the frozen product, they had virtually discarded it. Actually, the successful indoctrination of employees accomplished this purpose.

E. G. Evans, meat merchandiser, Kroger Co., Atlanta, voiced the opinion that, while there was undoubt-

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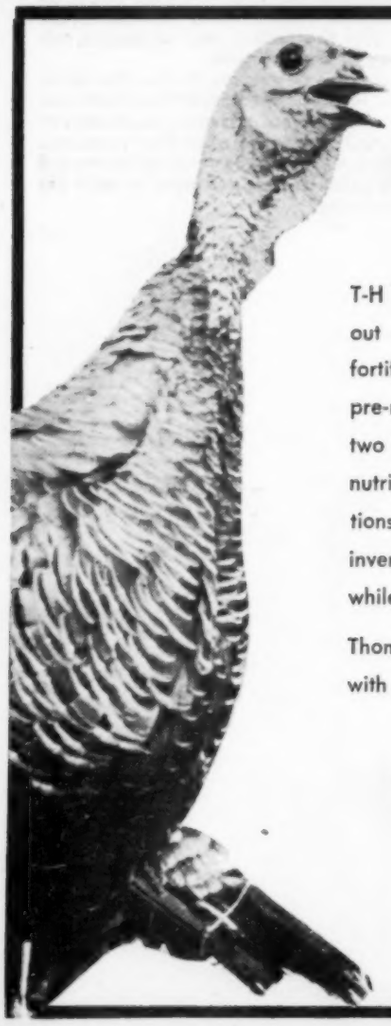

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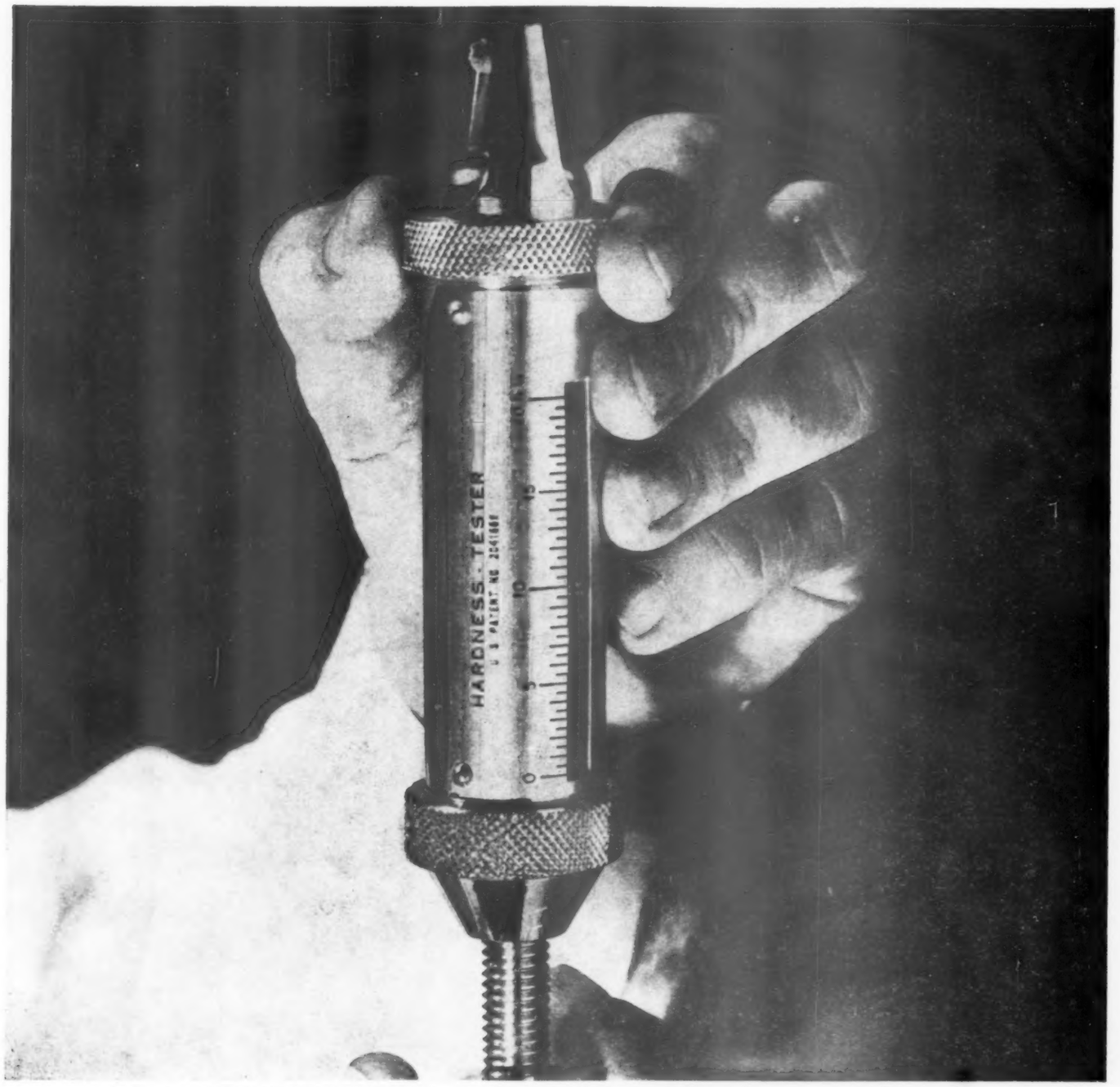

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edly room for both fresh and frozen chicken in retail stores, his company was strongly in favor of the fresh product. Mr. Evans pointed out that the physical characteristics of his operation strongly influenced this thinking. Current sales of about 6 million pounds of fresh poultry yearly indicate that Kroger customers want the fresh product.

Mr. Evans noted that recent tests in fresh versus frozen at the same price and in the same type of display pack showed that consumers preferred the fresh product by a wide margin. In fact, in three test stores, fresh outsold frozen by 11-1, 8-1 and 16-1.

Other parts of the opening morning session included a sales talk, "An Eye Opener to Selling" by Ralph Everett, Empire Sales Training, Miami, Fla., and a discussion of research relating to maintaining fresh and frozen chicken at optimum quality. The latter was handled by Dr. W. J. Stadelman, poultry department, Purdue University, Lafayette, Ind. Dr. Stadelman outlined current shipping procedures, retailer handling and shelf life of broiler fryers.

Housewives on Panel

A panel discussion featuring eight housewives from Athens, Ga., was the highlight of the afternoon part of the seminar. The panel was moderated by William Nigut, NBC marketing consultant.

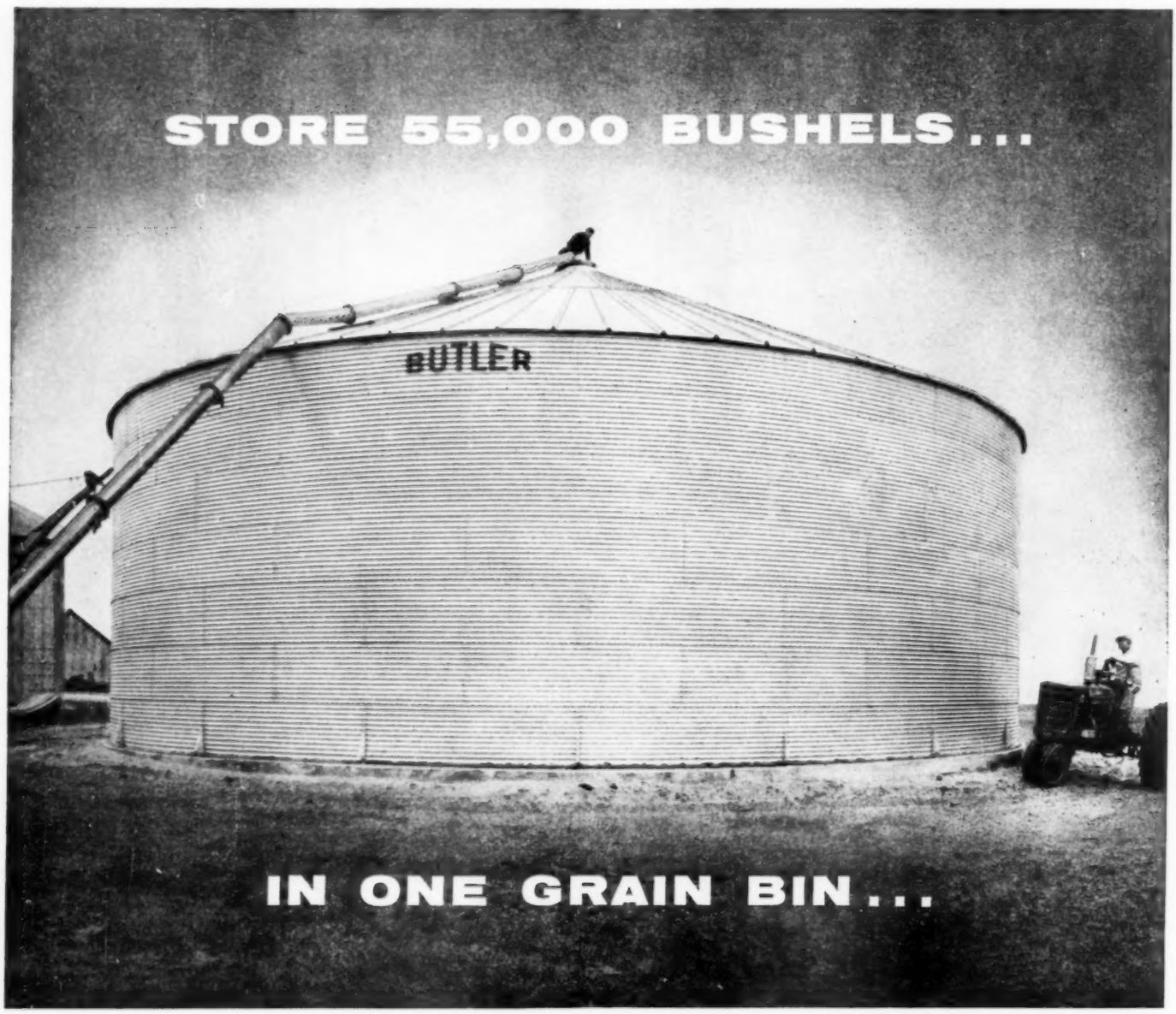
This discussion brought out the fact that the women's buying habits regarding chicken are no different from that of buying other meats. For the most part, these women said, they waited until chicken (and other meats) are featured at a lower price and then buy quantities for storing in their freezers.

When it came to fresh or frozen chicken, the women were almost unanimous in preferring the fresh product, even though they frequently froze it after getting home. Many admitted that perhaps they could not differentiate between the two unless one was frozen solid.

Rounding out the program were presentations by Frank Frazier, NBC executive vice president, and Ed Acree of the Broiler Council's advertising agency. Mr. Frazier outlined what the Broiler Council was accomplishing through its public relations activity and new sales promotional service. He also introduced the second of NBC's seasonal sales promotional services.

GRAIN MAN DIES

MILFORD, N.H.—Herbert H. Austin, 86, manager of the G. Whiting & Son grain store here until his retirement several years ago, died at a Nashua hospital after a long illness.



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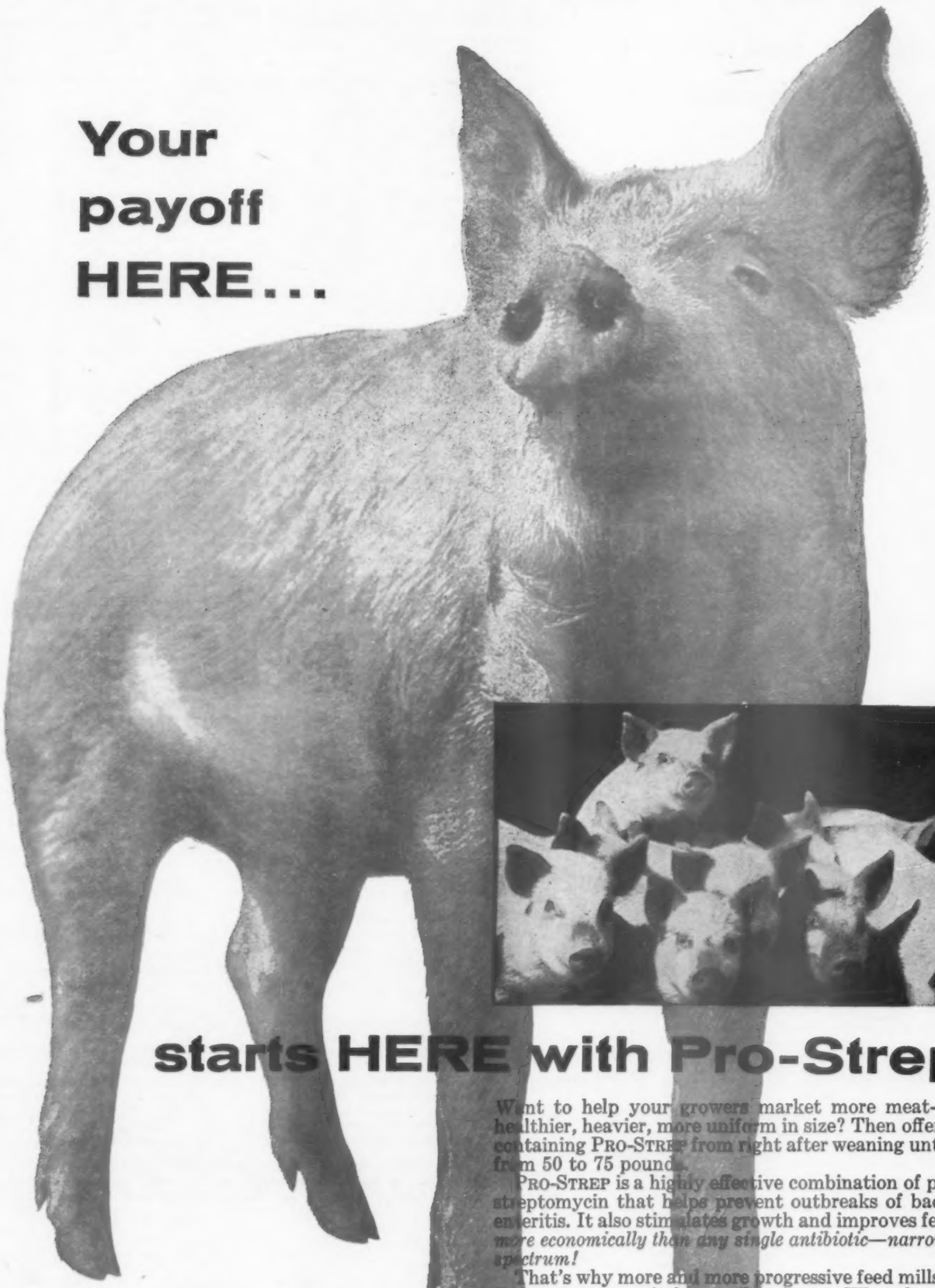

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That's why more and more progressive feed mills throughout the country are switching to PRO-STREP. What *they* want is what you want—an effective *combination* of antibiotics that can promote growth and protect health at lower cost.

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Effect of Feeding Raw or Heated Ground Soybeans on Gains, Feed Efficiency And Carcass Quality of Swine

By A. A. Jimenez, T. W. Perry, R. A. Pickett and W. M. Beeson
Purdue University

EDITOR'S NOTE: *This article is a progress report on swine feeding research at Purdue University, Lafayette, Ind., which included the use of ground heated unextracted soybeans. The report was presented at the 1961 Purdue Swine Day. Developments in the use of full-fat soybeans and an expansion pelleting process are regarded as significant, and feeding research is continuing. The research reported by Purdue was supported in part by a grant-in-aid from Wenger Mixer Mfg., Sabetha, Kansas.*

Soybeans for Swine—Because of price relationships of soybean oil and soybean oil meal throughout the year, it may be economical, during certain seasons, to market soybeans by feeding ground heated soybeans directly to the swine, instead of selling the beans and then buying the oil meal. A previous experiment conducted at Purdue not only indicated an increase in feed efficiency but also an improvement in daily gains as a result of feeding corn-heated soybean diets. In this trial, the improvement in gains by Aureomycin appeared to be greater in the raw soybean diet than in the heated soybean diet. After years of research, investigators have successfully fed ground raw soybeans to weanling rats when the diet has been properly supplemented with specific amino acids. At present, the cost of these amino acids does not warrant widespread use in swine rations. Although ground heated soybeans have a high nutritive value, their extensive use has been limited by the occurrence of soft or oily carcasses in swine.

The objectives of this experiment were:

(1) To further evaluate the carcass quality of pigs fed different soybean products.

(2) To determine the effects of adding DL-methionine at the level of 0.25% to diets containing raw or heated soybeans already supplemented with Aureomycin (20 gm. per ton up to 100 lb. and 10 gm. per ton to slaughter weight).

Experimental Plan—Sixty Yorkshire-Duroc and Duroc pigs, weighing an average of 40 lb., were divided into six lots according of age, litter, sex and live weight. Each group of pigs was placed in identical 30 ft. by 40 ft. concrete floored areas which contained a 10 ft. by 12 ft. Pur-Dual hog house, self-feeder and semi-automatic waterer. All lots were fed a complete mixed fortified corn-soy type ration.

The experimental treatments were as follows:

Lot 1. Corn-SOM (44%) basal ration.

Lot 2. Corn-SOM (44%) basal ration plus soybean oil equivalent to that present in the soybean rations (Lots 3 and 6).

Lot 3. Corn-ground heated soybeans.

Lot 4. Corn-ground heated soybeans plus 0.25% DL-methionine.

Lot 5. Corn-ground raw soybeans.

Lot 6. Corn-ground raw soybeans plus 0.25% DL-methionine.

All rations were fed at the following crude protein levels: (1) from weaning to 100 lb. live weight—16%, (2) from 100 lb. to 150 lb. live weight—13%, (3) from 150 lb. to slaughter weight—12%.

Chortetracycline was added to supply 20 gm. per ton in the 16% crude protein ration, and 10 gm. per ton in the other rations.

Preparation of the Ground Heated Unextracted Soybeans—Beans were first ground over a 1/16 in. screen, and were then elevated to a bin over the expansion pelleting equipment. This equipment included a two-stage, 10-foot steam jacketed preconditioner, equipped with steam injection manifold and a variable speed drive motor. The purpose of this conditioner was (1) to apply steam directly to the ground beans and to apply heat indirectly through a steam jacket, and (2) to act as the feeder for the expansion pellet mill.

The pellet mill itself was a 100 h.p. pellet mill, equipped with high speed mixer and gelatinizing expansion pellet head, both sections (feed section and coned nose section) of which are steam jacketed. The die used was 2 in. thick, equipped with 25 drilled and polished ¼ in. die outlets. Pellets were cut with a rotating knife, cooled and reground over a standard pellet crumble roll and were bagged.

1. Temperature of ground whole soybeans as discharged from preconditioner—210° F.

2. Retention time in pre-conditioner—approximately 2¼ min.

3. Temperature of ground whole soybeans as discharged from mixer —205° F.

4. Amperage on pellet extruder drive motor—50 amps.

5. Temperature of ground soybean as discharged from steam jacketed coned nose section of extruder—approximately 250° F.

(Turn to SOYBEANS, page 60)

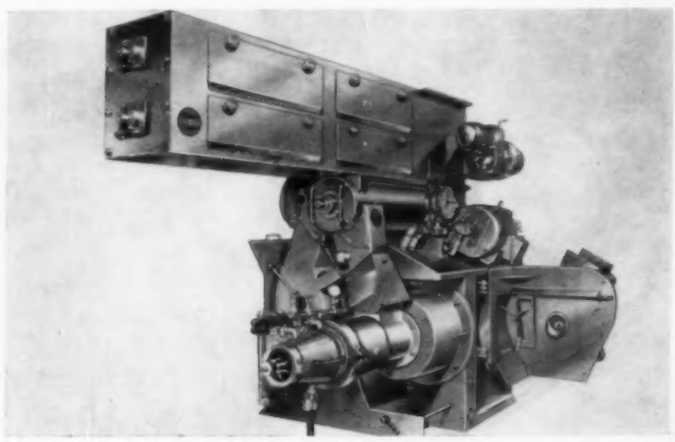
TABLE 1. Composition of Rations

Ingredients	Lot 1 16%	Lot 1 13%	Lot 1 12%	Lot 2 16%	Lot 2 13%	Lot 2 12%	Lot 3 16%	Lot 3 13%	Lot 3 12%
	Levels of protein in—								
	Per Cent								
Ground yellow corn	75.40	83.50	86.40	60.40	80.22	83.47	69.40	80.30	83.60
Soybean oil meal (44%)	21.00	12.90	10.00	22.17	13.30	10.60	....	....	....
Soybean oil	....	....	....	4.83	2.88	2.33	....	....	....
Gr. heated soybeans*	....	....	....	....	....	....	27.00	16.10	12.80
Gr. raw soybeans*	....	....	....	....	....	....	....	....	....
Defluorinated rock phosphate	1.00	+	+	+	+	+	+	+	+
Ground limestone	.60	+	+	+	+	+	+	+	+
Iodized salt	.50	+	+	+	+	+	+	+	+
Vitamin-mineral premix†	1.50	+	+	+	+	+	+	+	+

Ingredients	Lot 4 16%	Lot 4 13%	Lot 4 12%	Lot 5 16%	Lot 5 13%	Lot 5 12%	Lot 6 16%	Lot 6 13%	Lot 6 12%
	Levels of protein in—								
	Per Cent								
Ground yellow corn	69.40	80.30	83.60	69.40	80.30	83.60	69.40	80.30	83.60
Soybean oil meal (44%)	....	....	....	....	....	....	....	....	....
Soybean oil	....	....	....	....	....	....	....	....	....
Gr. heated soybeans*	27.00	16.10	12.80	....	....	....	....	....	....
Gr. raw soybeans*	....	....	....	27.00	16.10	12.80	27.00	16.10	12.80
Defluorinated rock phosphate	+	+	+	+	+	+	+	+	+
Ground limestone	+	+	+	+	+	+	+	+	+
Iodized salt	+	+	+	+	+	+	+	+	+
Vitamin-mineral premix†	+	+	+	+	+	+	+	+	+

*Ground heated soybeans processed by Wenger Mixer Mfg., Sabetha, Kansas; analyzed —37.62% crude protein; 18.21% ether extract; 9.19% moisture. Ground raw soybeans analyzed—37.68% crude protein; 19.50% ether extract; 9.93% moisture.

†Complex mixture added to supply the following trace minerals in parts per million: Cobalt, 1.3; copper, 3.7; iodine, 1.9; iron, 48; manganese, 61; zinc, 50. It also contained vitamins added to supply 500 I.U. vitamin A, 100 I.U. vitamin D and 6 mcg. of vitamin B_{12} per pound of ration. Other vitamins included in mg. per pound were: Riboflavin, 1.2; pantothenic acid, 2.4; niacin, 5.4; and choline chloride, 6.0. Aureomycin was added to supply 10 mg. per pound up to 100 lb. live weight and 5 mg. per pound thereafter. DL-methionine to supply 0.25% of the ration was also added according to the ration that called for it.



Equipment Used for Preparation of Heated Unextracted Soybeans

Soybean Processing Procedure Explained

There has been a good deal of interest in the possibilities of using heat-treated full-fat soybeans in feeding. Also, there is increasing interest in the use of an expansion pelleting process for feedstuffs.

The accompanying research report from Purdue University tells of the use in swine feeding of ground soybeans processed through expansion pelleting equipment.

The equipment used for preparation of the ground heated unextracted soybeans in the Purdue work is shown in the accompanying picture. The unit is a Wenger 100 h.p. Multi-Duty pellet mill, complete with steam jacketed two-stage preconditioner (acting as the feeder also for the pellet mill), and equipped with the Wenger expansion continuous cooking extruder assembly. This is the pellet mill in which the soy is cooked.

The complete process consists of grinding whole soybeans, elevating them into a bin above the preconditioner, applying steam to the ground beans by injection into the preconditioner, and by steam jacketing the preconditioner. The preconditioner is equipped with a variable speed drive motor, and therefore also acts as the feeder for the pellet mill. In the high speed mixer, additional steam is applied, and the product is then extruded through the continuous cooking expansion pelleting assembly. The beans are cooked continuously and reach temperatures of approximately 250° in this process. It may be noted that the expansion pellet head is also steam jacketed.

As the pellets are discharged from the expansion pellet head, they are run into a cooler where they are rather easily cooled, and are thereafter run over crumble rolls to reduce them to granular form, and thereafter the material may be incorporated into complete feeds or concentrates as required.

It is felt at Lafayette that the process is a significant one and that continuing feeding tests will bear this out.

It is noted that the expansion pelleting assembly in the equipment used is a component of the Wenger Multi-Duty pellet mill; this unit thus also may be used to produce hard pellets or high-molasses pellets.

TABLE 2. Effect of Supplementary DL-Methionine on Gain and Feed Efficiency of Growing-Finishing Swine Fed Corn-Raw or Heated Ground Soybean Rations

Item and unit	Lot 1 SOM	Lot 2 SOM plus soybean oil	Lot 3 Heated soybeans	Lot 4 Heated soybeans plus 0.25% DL-methionine	Lot 5 Raw soybeans	Lot 6 Raw soybeans plus 0.25% DL-methionine
	Type of diet in—					
Number of pigs*	9	10	10	10	10	9
Average initial weight, lb.	39.4	39.7	39.7	40.0	40.1	40.6
Avg. weight, Aug. 14, lb.	143.0	139.1	139.8	149.2	80.9	84.8
Average daily gain to Aug. 14,† lb.	1.48	1.42	1.43	1.56	0.58	0.63
Average daily feed, lb.	4.5	4.1	4.0	4.4	2.5	2.4
Feed per 100 lb. gain, lb.	307	288	283	283	426	372
Feed cost per 100 lb. gain‡	$8.36	$8.59	$8.02	$8.88	$12.18	$11.80

*Originally there were 10 pigs in each lot. One pig in Lot 1 died from heat stroke; another pig in Lot 6 was removed because of extreme unthriftiness.

†Total gains analyzed by the Newman-Keuls test showed that pigs on Lots 1, 2, 3 and 4 had similar gains. These four lots of pigs gained significantly faster than those on Lots 1 or 2. There was no difference between the gains in Lots 5 and 6.

‡Prices used per 100 lb.: Ground corn, $2.20; soybean oil meal (44%), $4.00; soybean oil, $12.00; whole raw soybeans, $3.73. Heat processing of the beans was estimated at $0.20 cwt.; grinding at $0.10 cwt.

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New LOW FREIGHT RATES

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to Eastern Markets

New carload rates save you extra dollars on America's greatest feed buy! This chart gives examples of these new freight rate savings on both 30 and 35-ton cars, from **all** shipping points in Florida. You will note that an extra saving of 5¢ per hundredweight can be yours by ordering in slightly larger 35-ton carload lots.

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From All Points In Florida To:	Old Rate* Per 100 Lbs.	New Rate Per 100 Lbs. 60,000 Lbs. 30-Ton Car	New Rate Per 100 Lbs. 70,000 Lbs. 35-Ton Car	You Save Per Car 60,000 Lbs. 30-Ton Car	You Save Per Car 70,000 Lbs. 35-Ton Car
BOSTON, MASS.	$1.00	$ .92	$ .87	$48.00	$91.00
SPRINGFIELD, MASS.	1.00	.90	.85	60.00	105.00
WORCESTER, MASS.	1.00	.91	.86	54.00	98.00
BURLINGTON, VT.	1.03	.95	.90	48.00	91.00
RUTLAND, VT.	1.01	.92	.87	54.00	98.00
DANBURY, CONN.	1.00	.86	.81	84.00	133.00
CONCORD, N. H.	1.01	.94	.89	42.00	84.00
AUGUSTA, MAINE	1.10	.99	.94	66.00	112.00
ALBANY, N.Y.	$1.00	$ .88	$ .83	$72.00	$119.00
BUFFALO, N.Y.	1.03	.91	.86	72.00	119.00
OSWEGO, N.Y.	1.01	.91	.86	60.00	105.00
ROCHESTER, N.Y.	1.03	.90	.85	78.00	126.00
SYRACUSE, N.Y.	1.01	.90	.85	66.00	112.00
UTICA, N.Y.	1.00	.90	.85	60.00	105.00
GETTYSBURG, PA.	.88½	.78	.73	63.00	108.00
LANCASTER, PA.	.88½	.79	.74	57.00	101.00

*Shipping Point—Orlando, Florida

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Danbury	$ .86	$ .81
Hartford	.88	.83
Stamford	.85	.80
Delaware		
Dover	.76	.71
Maine		
Augusta	.99	.94
Bangor	1.02	.97
Portland	.96	.91
Maryland		
Baltimore	.76	.71
Massachusetts		
Gardner	.92	.87
Lawrence	.93	.88
Worcester	.91	.86
New Hampshire		
Concord	.94	.89
Manchester	.93	.88
New Jersey		
Trenton	.80	.75
New York		
Binghamton	.88	.83
Elmira	.86	.81
Jamestown	.90	.85
Malone	.97	.92
Montauk	.92	.87
Ogdensburg	.95	.90
Oswego	.91	.86
Peekskill	.85	.80
Poughkeepsie	.86	.81
Syracuse	.90	.85
Utica	.90	.85
Watertown	.93	.88
Pennsylvania		
Altoona	.82	.77
Bethlehem	.81	.76
Canton	.84	.79
Coatesville	.79	.74
Erie	.90	.85
Fairmount	.86	.81
Hanover	.77	.72
Harrisburg	.79	.74
Hazleton	.83	.78
Lansdale	.80	.75
Mansfield	.88	.83
Philadelphia	.79	.74
Reading	.80	.75
Scranton	.84	.79
Towanda	.85	.80
Rhode Island		
Providence	.91	.86
Vermont		
Burlington	.95	.90
Newport	.98	.93
Rutland	.92	.87

Convention Calendar

New Listings

For the convenience of readers who scan the Convention Calendar regularly for new listings, those added to the column in the current week appear separately from ones which have been entered previously. The following week they will be moved to their proper slot where they will remain until the event is held.

Nov. 14-15 — Poultry Servicemen's Clinic; Cornell University, Ithaca, N.Y.; C. E. Ostrander, Poultry Husbandry Dept., 206 Rice Hall.

Nov. 16-17—Kentucky Beef Cattle Short Course; Kentucky Dam Village Park, Gilbertsville, Ky.; George D. Pendergrass, Animal Husbandry Dept., University of Kentucky, Lexington.

Dec. 8 — Illinois Sheep Day; University of Illinois, Urbana; U.S. Garrigus, Animal Science Dept.

1962

Jan. 31—Louisiana Livestock Producers Day; Louisiana State University, Baton Rouge 3; chm., Dr. A. M. Mullins, Animal Industry Dept.

June 8 — Poultry Coronation Banquet; Dinkler Plaza Hotel, Atlanta, Ga.; sec., Abit Massey, Georgia Poultry Federation, Box 493, Gainesville.

Nov. 5-8 — National Renderers Assn., Inc.; Waldorf-Astoria Hotel, New York, N.Y.; asst. sec., Rose Alpert, 30 North La Salle St., Chicago 2, Ill.

Nov. 6-7 — Egg Industry Conference; North Carolina State College, Raleigh; Motte V. Griffith, Jr., College Extension Division, Box 5125, Raleigh.

Nov. 7-8 — Nebraska Poultry Improvement Assn.; National Guard Armory, 176 No. 10th St., Lincoln; sec., Doyle H. Free, Poultry Husbandry Bldg., University of Nebraska, Lincoln.

Nov. 8-9 — Illinois Feed Assn.-Illinois Poultry & Hatchery Federation joint convention; Springfield Armory, Springfield; sec., I.F.A. Dean M. Clark, 141 W. Jackson Blvd., Chicago 4; sec., I.P.H.F., Aubrey Harless, Shelbyville, Ill.

Nov. 9-10—National Swine Industry Conference; Statler-Hilton Hotel, St. Louis, Mo.; chm., Keith Myers, Grundy Center, Iowa.

Nov. 13-14 — Washington Animal Industry Conference; Skagit Valley College, Mount Vernon, Wash.; John G. Wilson, mgr., Washington State Feed Assn., Inc., 814 Second Ave. Bldg., Seattle 4.

Nov. 15-17—Second Conference on Stored Grain Insects and Their Control; Kansas State University, Manhattan, Kansas; chm., Prof. D. A. Wilbur, Entomology Dept.

Nov. 16-19—Florida Nutrition Conference; Grand Bahama Hotel, West End, Grand Bahama Island; chm., Dr. J. P. Feaster, Animal Husbandry and Nutrition Dept., University of Florida, Gainesville.

Nov. 17—Nebraska Feed and Nutrition Conference; University of Nebraska, Lincoln; Dr. P. L. Kelly, chm., Dairy Husbandry Dept.

Nov. 17-18—Tennessee Feed Manufacturers Assn.; Holiday Inn of America, 960 S. 3rd, Memphis, Tenn.; sec., C. H. Warfield, 200 American Trust Bldg., Nashville, Tenn.

Nov. 19-21—Western Grain & Feed Assn. of Iowa; Fort Des Moines Hotel, Des Moines, Iowa; sec., Bob Skinner, 401 Shops Bldg., Des Moines 9.

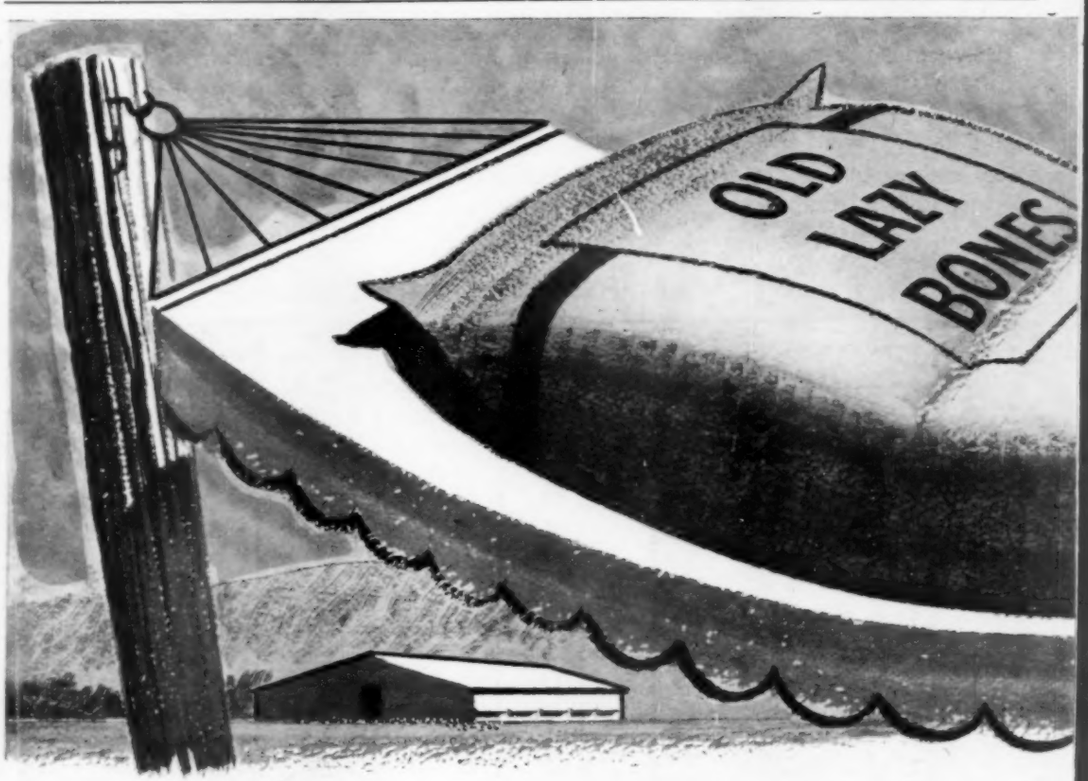
Nov. 30-Dec. 1—Dealers Nutrition Conference; University of Nebraska, Lincoln; Dr. P. L. Kelly, chm., Dairy Husbandry Dept.

Dec. 5-6 — North Dakota Turkey Convention; Civic Center Auditorium, Fargo; sec., North Dakota Turkey Federation, Irving J. Mork, Box 2408, State University Station, Fargo.

Dec. 6-7 — Missouri Poultry and American Poultry & Hatchery Federation Midwest Quickie Convention; Hotel Continental, Kansas City, Mo.; sec., Missouri Poultry Improvement Assn., E. M. Funk, Box 568, Columbia, Mo.

Dec. 7-8—Michigan Feed & Grain Dealers Assn.; Pantlind Hotel, Grand Rapids, Mich.; sec., Nevels Pearson, Box 472, East Lansing.

Dec. 7-8 — North Carolina Animal Nutrition Conference; North Carolina State College, Raleigh; chm., Dr. G. H. Wise, Animal Nutrition Section, Animal Industry Dept.



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If they are, you can restore their effectiveness through the use of BACIFERM, the feed supplement with zinc bacitracin. Here's why:

Repeated use of certain antibiotics in broiler feeds has resulted in bacterial strains that no longer respond to antibiotic therapy. Recent studies show that this resistance to antibiotics builds rapidly and persists throughout the broiler cycle. Merely raising the level of the antibiotic in the feed seems to have little effect.

Adding BACIFERM to the prestarter interrupts this bacterial resistance and promotes growth of healthy intestinal microflora. The accompanying table shows how introduction of BACIFERM drastically reduces bacterial resistance to a tetracycline-type antibiotic.

BACIFERM's double-barreled action (attacking the bacterial cell wall and upsetting bacterial protein synthesis) reduces the tendency for bacteria to resist antibiotics. It means that in disease outbreaks subsequent to the BACIFERM prestarter feed period BACIFERM, as well as other antibiotics, may be used as a therapy.

BACIFERM with zinc bacitracin has proven effective in lowering broiler mortality and improving feed efficiency when added to the prestarter. Feed processors can use BACIFERM with confidence. It is a sound, stable medication that can be counted on every time for effective economical suppression of bacterial invaders.

Write for samples and the new brochure, "BACIFERM IN BROILER RATIONS."

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- Horizontal Mixers
- Molasses Mixers
- Bucket Elevators
- Turnheads
- Vertical Screw Lifts
- Horizontal Screw Conveyors

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Dec. 13—American Society of Agricultural Engineers; Palmer House, Chicago; grain storage and feed processing session, cooperative program sponsored by ASAE and Grain Processing Machinery Manufacturers Assn.; sec., GPMMA, John Wessman, 400 W. Dartmouth Rd., Kansas City 13, Mo.

1962

Jan. 8-9 — Kansas Formula Feed Conference; Kansas State University, Manhattan; chm., Prof. T. B. Avery, Poultry Science Dept., West Waters Hall.

Jan. 9-11—National Turkey Federation; Memorial Auditorium, Dallas, Texas; co-headquarters hotels, Baker and Adolphus; sec., M. C. Small, Box 69, Mount Morris, Ill.

Jan. 21-23—Indiana Grain & Feed Dealers Assn.; Claypool Hotel, Indianapolis; sec., Fred K. Sale, 600 Board of Trade Bldg., Indianapolis 4.

Jan. 21-24—Farmers Grain Dealers Association of North Dakota; Civic Memorial Auditorium, Fargo; sec., Lloyd C. Hanson, 513 Black Bldg., Fargo.

Jan. 23-27—New Jersey Farmers Week and Farm Show (Jan. 23-25); Trenton Armory; sec., Phillip Alampi, New Jersey Department of Agriculture, Trenton 25.

Jan. 28-30—Midwest Feed Manufacturers Assn.; Shamrock-Hilton Hotel, Houston, Texas; exec. vice pres., Lloyd Larson, 20 W. 9th St. Bldg., Kansas City, Mo.

Jan. 29-31 — Southeastern Poultry & Egg Assn.; Municipal Auditorium, Atlanta, Ga.; sec., Harold E. Ford, 235 E. Ponce de Leon Ave., Decatur, Ga.

Jan. 30-31—Illinois Agricultural Industries Forum; University of Illinois, Urbana, Ill.

Jan. 31-Feb. 1 — Illinois Nutrition Conference; University of Illinois, Urbana; chm., Dr. Carl L. Davis, Dairy Science Dept.

Jan. 31-Feb. 1 — New Hampshire Poultry Health Conference; University of New Hampshire, Durham; Richard Warren, Poultry Science Dept.

Feb. 1—Missouri Turkey Day; University of Missouri, Columbia; sec., Missouri Poultry Improvement Assn., E. M. Funk, Box 568, Columbia.

Feb. 1-2—Oregon Animal Industry Conference; Oregon State University, Corvallis, Ore.; co-sponsored by the Oregon Feed & Seed Dealers Assn. and Oregon State University; chm., Bill Eggimann, Dairy Cooperative Assn., 2613 S.E. 8th Ave., Portland.

Feb. 4-6—Wyoming Grain, Feed & Seed Dealers Assn.; Townsend Hotel, Casper, Wyo.; sec., Everett L. Berry, Box 118, Sheridan, Wyo.

Feb. 5-7—Association of Southern Agricultural Workers; Jacksonville, Fla.

Feb. 7-9 — American Dehydrators Assn.; Stardust Hotel, Las Vegas, Nev.; Joseph Chrisman, 430 Board of Trade Bldg., Kansas City 5, Mo.

Feb. 9-11 — Poultry Fact Finding Conference; sponsored by Institute of American Poultry Industries; Municipal Auditorium, Kansas City, Mo.; pres., Harold M. Williams, 67 E. Madison, Chicago 2, Ill.

Feb. 12-13 — Montana Nutrition Conference; Montana State College, Bozeman; chm., Dr. O. O. Thomas, Animal Industry and Range Management Dept.

Feb. 14-15—Pacific Northwest Feed Mill Production School; Benjamin Franklin Hotel, Seattle; sponsored by

CALENDAR FOR 1961-62

NOVEMBER

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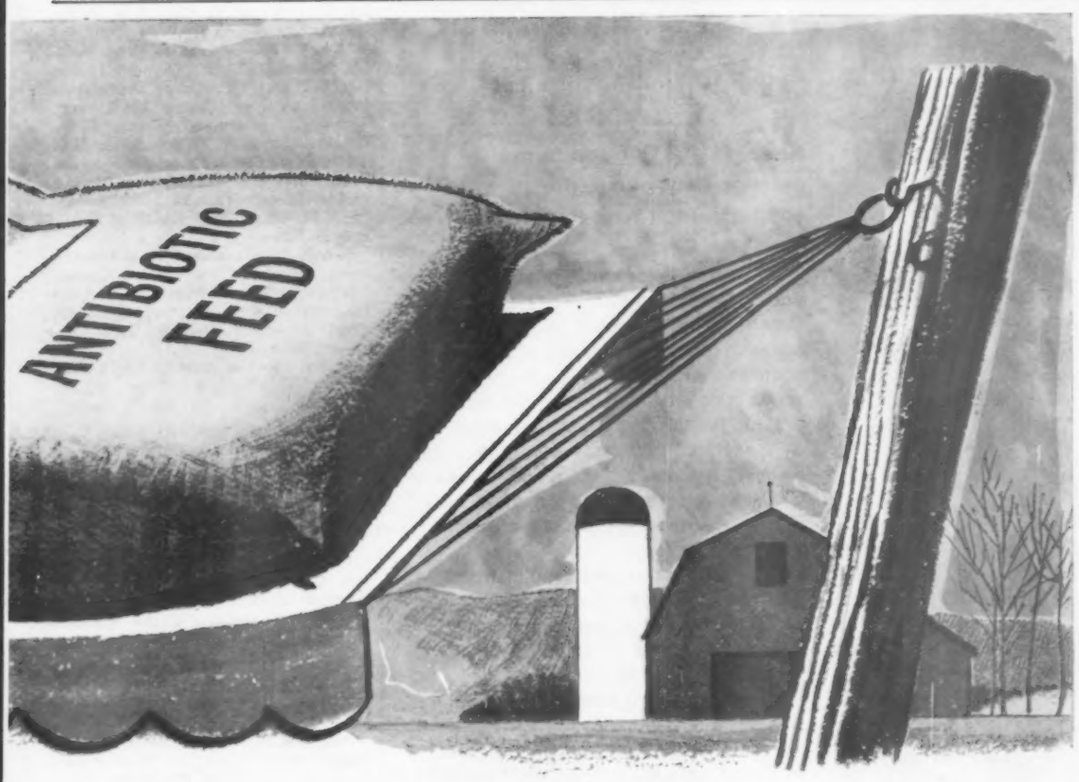

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PERCENT OF E. COLI IN CECA OF BROILER RESISTANT TO 40 MCG/ML OF TETRACYCLINE-TYPE ANTIBIOTIC*

Antibiotic levels fed first 3 weeks only	Percent resistance at weekly intervals** 2	3	4	6	8
500g/T tetracycline-type	74%	71%	39%	16%	5%
200g/T tetracycline-type	38%	54%	43%	9%	0%
150g/T tetracycline-type plus 50g/T Baciferm	8%	11%	9%	6%	1%
100g/T tetracycline-type plus 100g/T Baciferm	10%	7%	5%	3%	2%
200g/T Baciferm	**0%**	**0%**	**0%**	**0%**	**0%**

*Potentiation gives average blood levels of 0.5 mcg/ml.
**No data were obtained during first week.

In this test, the antibiotics were fed for the first three weeks. Bacterial resistance was measured at weekly intervals.

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Washington State Feed Assn.; mgr., John G. Wilson, 814 Second Ave. Bldg., Seattle 4.

Feb. 15-16 — Utah Feed Manufacturers & Dealers Assn. Annual Nutrition Conference and Meeting; The Newhouse Hotel, Salt Lake City; sec., Dr. Lawrence Morris, Brigham Young University, Provo.

Feb. 16 — Washington State Feed Assn. annual convention; Benjamin Franklin Hotel, Seattle; mgr., John G. Wilson, 814 Second Ave. Bldg., Seattle 4.

Feb. 18-20 — Ohio Grain & Feed Dealers Assn.; Commodore Perry Hotel, Toledo; sec., George G. Greenleaf, P.O. Box 151, Worthington.

Feb. 20 - 21 — Virginia State Feed Convention and Nutrition Conference; Hotel Roanoke, Roanoke, Va.; sec., Virginia State Feed Assn., J. Paul Williams, 615 E. Franklin St., Richmond 19, or Prof. Paul M. Reaves, Dairy Science Dept., Virginia Polytechnic Institute, Blacksburg.

Feb. 26 - March 1 — Colorado Livestock Days; Colorado State University, Fort Collins; chm., Dr. C. D. Story, head, Animal Science Dept.

March 2-3—Oklahoma Feed Industry Conference and Work Shop; Oklahoma State University, Stillwater; Dr. Rollin H. Thayer, chm., Poultry Science Dept.

March 4-6—Nebraska Grain & Feed Dealers Assn.; The Cornhusker Hotel, Lincoln; sec., Howard W. Elm, Terminal Bldg., Lincoln 8, Neb.

March 8 - 9 — Maryland Nutrition Conference; Shoreham Hotel, Washington, D.C.; chm., Dr. R. D. Creek, Poultry Dept., University of Maryland, College Park.

March 13—Illinois Swine Growers Day; Univerity of Illinois, Urbana, Ill.

March 15-16—Oregon Feed & Seed Dealers Assn.; Sheraton Hotel, Portland; sec., Russ Hays, Lewis Bldg., Portland 4.

March 15-17 — Pacific Dairy and Poultry Assn.; Biltmore Hotel, Los Angeles, Cal.; sec., Lloyd J. Powers, 1304 E. 7th St., Los Angeles 21.

March 19-21—Poultry and Egg National Board; Palmer House, Chicago, Ill.; mgr., Lloyd H. Geil, 8 S. Michigan Ave., Chicago 3.

March 21-23—Grain & Feed Dealers National Assn.; Denver - Hilton Hotel, Denver, Colo.; Secretaries Circle meetings March 19-20; sec., Herbert L. Sharp, 401 Folger Bldg., 725 15th St. N.W., Washington, D.C.

March 25 - 30 — Grain Elevator & Processing Superintendents; Town House Motel, Omaha, Neb.; sec., Dean M. Clark, 1115 Board of Trade Bldg., Chicago 4, Ill.

March 28—Distillers Feed Conference; Sheraton Gibson Hotel, Cincinnati, Ohio; Dr. Lawrence E. Carpenter, Executive Director, Distillers Feed Research Council, 1232 Enquirer Bldg., Cincinnati 2.

March 28—Commercial Egg Clinic; Texas A&M College, College Station; B. C. Wormeli, Extension Poultry Husbandman.

April 9-10 — National Institute of Animal Agriculture; Purdue University, Lafayette, Ind.; sec., Karl D. Butler, P.O. Box 521, First National Bank Bldg., Ithaca, N.Y.

April 10-12—Animal Health Institute; Statler-Hilton Hotel, Washington, D.C.; sec., D. L. Bruner, 512 Shops Bldg., Des Moines 9, Iowa.

April 13 — Illinois Cattle Feeders Day; University of Illinois, Urbana.

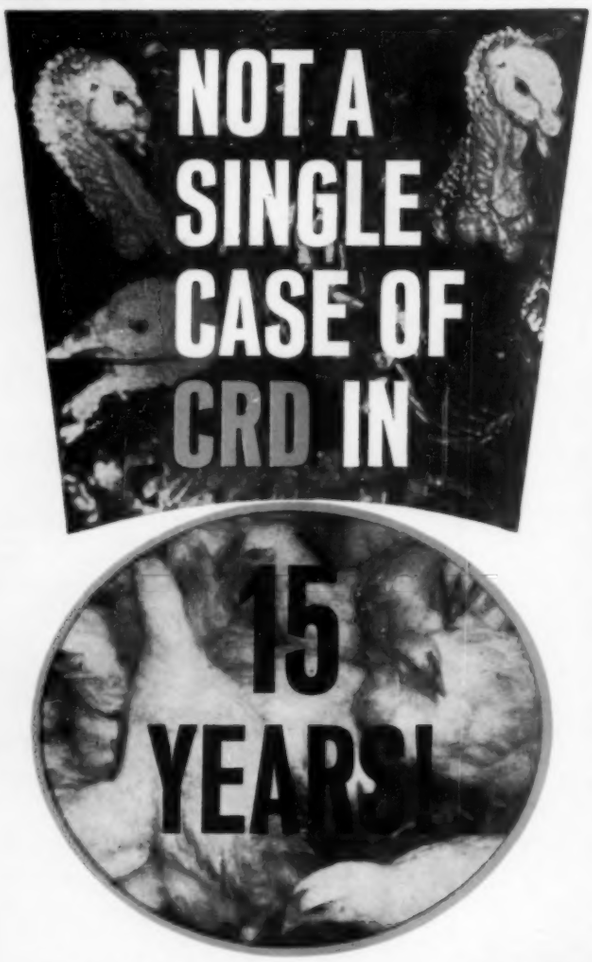
April 18—Nebraska Feeders Day; University of Nebraska, Lincoln; chm., Dr. Robert M. Koch, Animal Husbandry Dept.

April 26-28 — Texas Grain & Feed Assn.; Hotel Texas, Ft. Worth; sec., R. B. Bowden, 504 Ft. Worth Club Bldg., Ft. Worth 2.

April 26-28—California Hay, Grain & Feed Dealers Assn.; Biltmore Hotel, Los Angeles, Cal.; sec., Leo L. Johnson, 1400 10th St., Sacramento 14, Cal.

April 26-28—Kansas Grain & Feed Dealers Assn.; Broadview Hotel, Wichita, Kansas; sec., Orris E. Case, 609 Wiley Bldg., Hutchinson, Kansas.

April 27 — Indiana Cattle Feeders Day; Purdue University, Lafayette;



Success due to good farm management plus rations supplemented with Peebles' M-N-C

CRD (chronic respiratory disease) is the poultry affliction that many authorities state is by far the most frequent disease cause of poultry condemnations and is responsible for the loss of hundreds of thousands of dollars in poultry profits annually.

But in the 15 years the experimental farm of Western Condensing Company has been raising poultry, not a single case of CRD has occurred! And they have raised thousands upon thousands of broilers, layers and turkeys!

This amazing record results from two factors: The use of Peebles' M-N-C in all poultry rations plus good management.

M-N-C consists of appetizing milk nutrients that keep birds on full feed constantly, even during stress. And it is stress that leads to most cases of CRD.

Good management, too, is exceptionally important in CRD prevention. Crowding, poor ventilation, unsanitary conditions and other inadvisable practices pave the way for stress and CRD.

NOW! Build low-cost CRD protection into all your poultry feeds with Peebles' M-N-C

It's true! Now you can offer poultrymen CRD protection right in with their regular rations by adding M-N-C to your poultry feeds!

Unlike ordinary dried whole whey, M-N-C contains a high concentration of delactosed milk nutrients and whey factor. It develops bonus digestive organisms for more complete utilization of the feed components...keeps appetites sharp...builds strong, *natural* resistance to stress. *And research proves stress leads to the bulk of all cases of CRD.*

Compared to costly medications, M-N-C is an extremely low-cost way to combat stress and CRD. And birds never build immunity to healthful milk nutrients!

And remember this...the use of economical M-N-C in your feeds means you can offer poultry raisers protection against CRD at a price that won't cut into their razor-thin profit margins.

Add the strong sales plus of Peebles' M-N-C to all your poultry feeds. Write or phone us today for complete details and prices.

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ANY WAY YOU SLICE IT

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a Nichols cross produces a higher yield

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If you aren't increasing your fertilizer tonnage and making more profit... let me tell you how!

★ EXCLUSIVE TERRITORY

Smith-Douglass exclusive fertilizer dealers have growth potential and territory protection, giving them room to expand.

★ DEALER TRAINING

Experienced Smith-Douglass personnel train Smith-Douglass dealers to increase tonnage and make more profit.

★ SALES ASSISTANCE

Smith-Douglass sales supervisors provide planned sales programs . . . help to secure new business and keep it.

★ RESEARCH

Smith-Douglass pioneered the production of pelleted fertilizer and particularly that produced by the ammonium phosphate process. Continuous research provides the high quality fertilizer Smith-Douglass customers expect.

★ PLANNED ADVERTISING

Carefully planned advertising keeps Smith-Douglass before customers. In each Smith-Douglass ad, you'll find material designed to help the farmer, plus sell fertilizer.

★ LOCAL PROMOTIONS

Help with local promotions . . . farmer meetings . . . open houses . . . advertising displays . . . soil testing assistance and fertilizer recommendations . . . dealer aids and advertising specialties.

★ CONVENIENT LOCATIONS

Smith-Douglass plants are conveniently located for prompt shipment and delivery of fertilizer when needed.

★ REPUTATION

For 40 years, Smith-Douglass has built and maintained a reputation for integrity and quality in fertilizer and phosphorus feed supplements . . . providing the service and dependability farmers want.

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TEXAS CITY, TEXAS
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WILMINGTON, N. C.

'SICK CHICKEN' GETS TREATMENT—Staff members of the National Broiler Council are pictured in a skit at the annual conference in Jackson, Miss., in which the "sick chicken" is receiving hospital treatment. David Martin is representing the sick poultry industry as the patient. "Dr." Frank Frazier, left, executive vice president of NBC, is injecting a hypodermic needle. Consultants are, left to right, "Drs." Murrell Thomas, Barbara Hunter, R. J. Krueger, and a nurse.

chm., Dr. W. M. Beeson, Animal Science Dept.

May 4-5—Illinois Grain Dealers Assn.; St. Nicholas Hotel, Springfield, Ill.; exec. sec., Donald E. Palmer, 910 Lehmann Bldg., Peoria, Ill.

May 10-11—Alabama Poultry Industry Assn. Convention and Poultry Jubilee; Dinkler - Tutwiler Hotel, Birmingham, Ala.; sec., W. L. Walsh, Box 567, Montgomery.

May 10-12—American Feed Manufacturers Assn.; Conrad Hilton Hotel, Chicago, Ill.; sec., W. T. Diamond, 53 W. Jackson Blvd., Chicago 54.

May 27-28—Missouri Grain & Feed Assn.; Hotel Governor, Jefferson City, Mo.; sec., D. A. Meinershagen, Higginsville, Mo.

June 28-30—Canadian Feed Manufacturers National Assn.; Sheraton Brock Hotel, Niagara Falls, Ontario, Canada; sec., Ontario Division, H. J. Willcock, 356 Eastern Ave., Toronto 8, Ontario.

July 17-19—American Poultry Congress & Exposition; St. Louis, Mo.; sec., American Poultry & Hatchery Federation, Don M. Turnbull, 521 E. 63rd St., Kansas City 10, Mo.

Aug. 13-18—12th World's Poultry Congress; Show Grounds of the New South Wales Royal Agricultural Society, Sydney, Australia; Dr. Cliff D. Carpenter, chairman, U.S. Participation Committee, 1207 Emerald Bay, Laguna Beach, Cal.; Dr. A. William Jasper, secretary, c/o AFBF, 2300 Merchandise Mart, Chicago 54, Ill.

Aug. 24—Purdue Swine Day; Purdue University, Lafayette, Ind.; chm., R. A. Pickett, Animal Science Dept.

Nov. 8—Upper Peninsula Feed Dealers Assn.; State Office Bldg., Escanaba, Mich.; UPFDA, Box 342, Sault Ste. Marie.

1963

March 24-29—Grain Elevator & Processing Superintendents; Commodore Perry Hotel, Toledo, Ohio; sec., Dean M. Clark, 1115 Board of Trade Bldg., Chicago 4, Ill.

New Test Building Dedicated in Arkansas

FAYETTEVILLE, ARK.—A new random sample commercial egg and controlled environment test building was dedicated as a feature of the Poultry Study Day program at the University of Arkansas.

The building, located on the poultry farm of the main agricultural experiment station, two miles north of the campus on Highway 112, was presented to the university by Roy C. Armstrong, president of the Arkansas Poultry Improvement Assn.

This is the third building to be constructed by the association for use in the random sample testing program. The others are used for meat and egg phases of commercial broiler tests; the new building will be for commercial egg tests, first of which is underway.

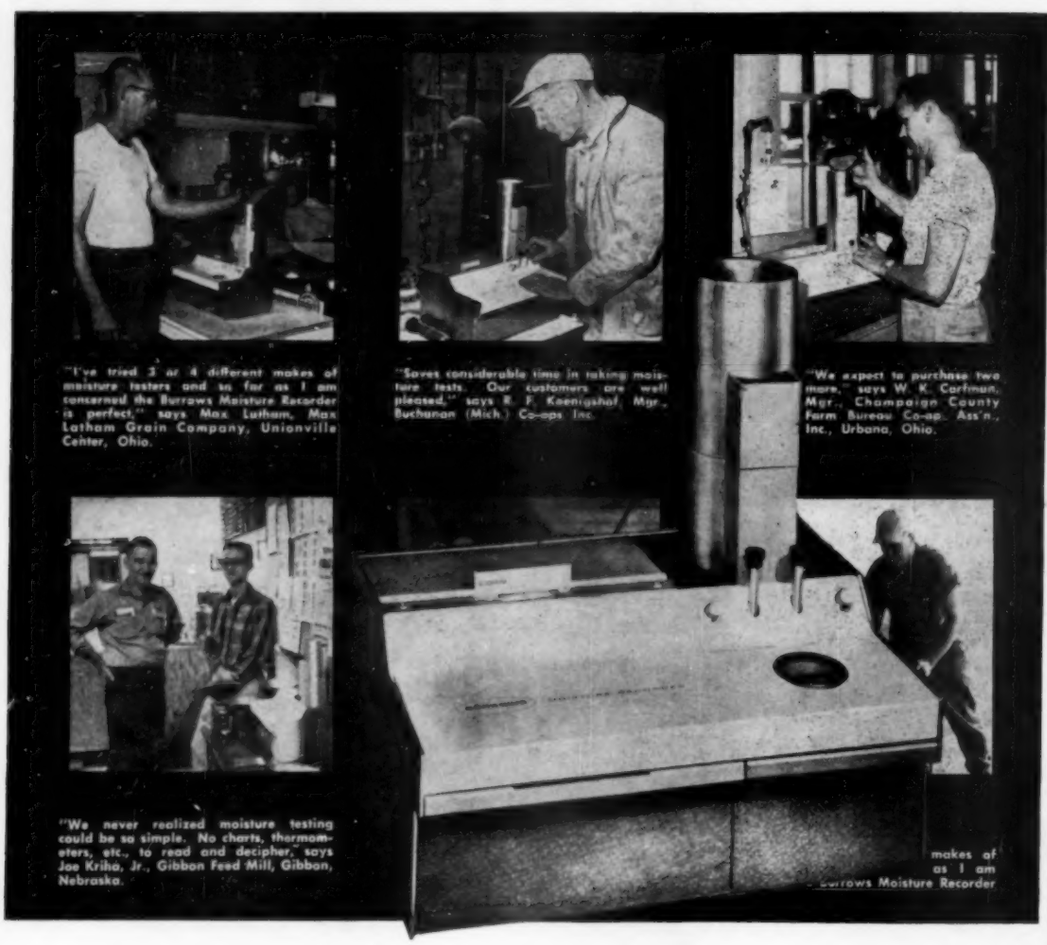
The testing program is a cooperative effort of the Arkansas Agricultural Experiment Station, Arkansas Agricultural Extension Service and the Arkansas Poultry Improvement Assn.

The new commercial egg and controlled environment test differs from other random sample egg tests in the U.S. in two major respects, according to Dr. N. R. Gyles, who directs the tests. First, testing will take place over a 15-month laying period, as compared to the usual 12-month period in other tests.

Second, birds will be tested in two different environments at the same location. This is possible because of the unique construction of the new house, which is composed of two sections.

One section duplicates the average laying house. The other has special equipment for controlling such factors as temperature, humidity, ventilation and lighting. Control is made possible by a system of heaters and fans, the elimination of windows, the use of insulation in the walls and roof and the use of a sealed ceiling and aluminum roofing.

Each half of the house contains two pens for each entry, with 50 pullets housed in each pen. Some 16 different strains and strain crosses have been entered in the first test, making a total of 1,600 birds in each half of the house.


"I've tried 3 or 4 different makes of moisture testers and so far as I am concerned the Burrows Moisture Recorder is perfect," says Max Latham, Max Latham Grain Company, Unionville Center, Ohio.
"Saves considerable time in taking moisture tests. Our customers are well pleased," says R. F. Kaenigshof, Mgr., Buchanan (Mich.) Co-ops Inc.
"We expect to purchase two more," says W. K. Corfman, Mgr., Champaign County Farm Bureau Co-op. Ass'n., Inc., Urbana, Ohio.
"We never realized moisture testing could be so simple. No charts, thermometers, etc., to read and decipher," says Joe Kriha, Jr., Gibbon Feed Mill, Gibbon, Nebraska.
makes of as I am
Burrows Moisture Recorder

A Major Breakthrough in Moisture Testing!

Recent discoveries in electronics have resulted in a moisture tester that tests all grains directly, quickly and accurately. Only the Burrows Moisture Recorder offers you all these advantages.

Accurate—Balanced electronic circuit is self-adjusting.

No charts—Direct moisture percentage reading on a lighted dial. Human errors eliminated.

Automatic temperature correction—No separate temperature tests.

Fast—Complete reading in 5 seconds.

Printed tickets—Moisture percentage can be printed on scale ticket automatically.

Automatic wt. per bu. correction—Patented test cell adjusts for all variations.

Large 250 gram sample.

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Win a Rose Bowl Trip

by using your skill in formulating
feeds with vitamin A

ENTER NOW!

and win this all-expense-paid trip for two to sunny California for the exciting Rose Bowl weekend

Every qualified entrant will receive a handsome monogrammed desk pen set.

And you may discover how to save your company substantial money in vitamin A fortification, as well

Here's the way to test your knowledge of vitamin A and feed fortification . . . and win a valuable prize as well. The top prize—a Rose Bowl trip for two (or its cash equivalent)—includes a weekend at a luxury hotel, a tour of Disneyland, all travel arrangements and $100 for other expenses.

You get all this, if you win, plus two top-location tickets for the famous Rose Bowl game on January 1, 1962, and tickets for seats on the Rose Bowl Parade Route. And every qualified contest entrant will receive a pen set for his office or home desk. This handsome set will be monogrammed with your initials.

You'll be testing your skill and judgment against every other feed expert who enters. Enter now for your chance at the big trip.

Why this contest

Vitamin A is one of the major limiting nutrients in livestock and poultry feeding today. And as more research is carried out, vitamin A has been discovered to play an increasing part, not just in growth, but in disease conditions as well.

This contest is one method of focusing attention on this vital ingredient in feeding—and formulating—success. And perhaps it can help you save your company a substantial amount of money at the same time.

How to Win the Rose Bowl Trip

- Solve the problems, using as your guide the directions provided.
- In the first problem you should fortify the ration with the vitamin A source which is the most economical and determine the savings resulting from this.
- The second problem is to select the Pfizer Vitamin A Palmitate in Gelatin with the potency that is most economical.
- The third problem involves calculating vitamin A requirements and fortification levels for a beef supplement. This problem will be judged not only on the decisions you make but upon your reasons for selecting the course of action.

CONTEST RULES:

- The Rose Bowl trip for two will be awarded to the entry which, in the judges' opinion, has best calculated vitamin A requirements and costs.
- Every qualified entry will receive a desk pen set.
- Contest starts now. Entries must be postmarked by November 22nd and received by November 30th. The Rose Bowl trip will be awarded shortly thereafter and prizes will be mailed to all qualified contestants.
- Contest is open only to personnel of companies in the feed industry. Not eligible are employees of Pfizer or their advertising agencies and their families.
- A numerical answer must be provided for all blanks in questions.
- Only one entry per person. Ask your Pfizer representative for extra entry blanks or write Pfizer in New York.
- Submit all calculations and reasoning on separate sheets. Neatness as well as accuracy will be a factor.
- All entries will be judged by outstanding authorities in the field of animal nutrition and the judges' decision will be final.

HERE ARE THE PROBLEMS

1

A feed manufacturer is asked to produce a crumblized layer ration with the following ingredients:

Corn	1,440
Alfalfa meal (17%)	50
Soybean meal (50%)	260
Fish meal (60%)	100
Vitamin, mineral, antibiotic pre-mix	150
	2,000 lbs.

The alfalfa meal contains 60 milligrams of carotene per lb. and the corn 0.7 milligram per lb.

a. With the carotene conversion of 1 microgram of carotene per unit of vitamin A for layers, how much vitamin A does this ration supply per ton?

_____ units per ton

b. Recommended levels of vitamin A per lb. of layer feed are 2,000 to 4,000 units. For this problem, use 4,000 units per pound. How many additional units of vitamin A are needed per ton of feed?

_____ units per ton

c. The feed manufacturer above is considering two sources of vitamin A: Fish liver oil, containing 10,000 units of vitamin A per gram, or Pfizer Vitamin A-250 Palmitate in Gelatin, containing 250,000 units of vitamin A per gram.

Using fish liver oil or using Pfizer Vitamin A-250 Palmitate in Gelatin, how many lbs. of vitamin A supplement are needed to fortify a ton of the above ration?

Fish liver oil (1) _____ lbs.

Pfizer Vitamin A-250 Palmitate in Gelatin (2) _____ lbs.

d. Samples of the crumbles containing fish liver oil or Pfizer Vitamin A Palmitate in Gelatin were analyzed after seven weeks (they had been in the mill two weeks, in the dealer's store a month, and in the farmer's feed bin for five days).

The assays showed this percent of vitamin A retention:

Carotene 45%

Fish liver oil 63%

Pfizer Vitamin A-250 Palmitate in Gelatin 84%

Using fish liver oil, or using Pfizer Vitamin A-250 Palmitate in Gelatin, how many lbs. of vitamin A supplement are needed to compensate for the storage losses described above?

Fish liver oil (1) _____ lbs.

Pfizer Vitamin A-250 Palmitate in Gelatin (2) _____ lbs.

e. Many years of research in several species have shown that vitamin A oils are not absorbed as efficiently by animals and poultry as vitamin A dispersed in gelatin. Technical literature reports superiority of gelatin-stabilized vitamin A over fish oils, varying from 113% to 423%, based on liver storage. For this problem, a value of 60% is used to compare the biological availability of fish liver oil to that of Pfizer Vitamin A-250 Palmitate in Gelatin.

How many lbs. of fish liver oil would be needed per ton just to bring the liver storage level of the birds up to that provided by Pfizer Vitamin A-250 Palmitate in Gelatin in the same ration?

Added fish liver oil _____ lbs.

f. Taking into consideration all of the factors previously described, what is the total number of pounds of fish liver oil needed per ton of the above ration?

(1) _____ lbs.

Taking into consideration all of the factors previously described, what is the total number of pounds of Pfizer Vitamin A-250 Palmitate in Gelatin needed per ton of the above ration?

(2) _____ lbs.

g. If the price of the above fish liver oil is 31¾¢ per lb. and the price of Vitamin A-250 Palmitate in Gelatin is $10.22 per lb., what is the cost of fortifying a ton of the above feed with—

Fish liver oil (1) $_____ per ton

Pfizer Vitamin A-250 Palmitate in Gelatin (2) $_____ per ton

h. Assuming an annual production of 15,000 tons of the above layer crumbles, what will be the total yearly savings, using the more economical vitamin A source?

$_____ per year

CUT ALONG DOTTED LINE

USE THIS ENTRY BLANK

Enter your answers to the problems here. The answer spaces are keyed to the problems. Attach work sheets showing all calculations and reasoning.

PROBLEM 1

a. _____ units per ton **e.** _____ lbs.

b. _____ units per ton **f.** (1) _____ lbs.

c. (1) _____ lbs. (2) _____ lbs.

(2) _____ lbs. **g.** (1) $_____ per ton

d. (1) _____ lbs. (2) $_____ per ton

(2) _____ lbs. **h.** $_____ per year

PROBLEM 2

a. $_____

b. (1) Most economical source: _____

(2) Savings per 130 tons: _____

PROBLEM 3

(Attach calculations and reasonings for your answer)

2 You are making a pre-mix for a broiler ration you are manufacturing. The pre-mix will include vitamin A at the level of 400,000 units per pound and will be added at the level of 20 lbs. per ton of feed.

a. You have these Pfizer Vitamin A Palmitate in Gelatin products in your warehouse:

	U. S. P. Units Per Pound	Price per lb.
A-30-P	13,620,000	$ 1.30
A-250-P	113,500,000	$10.22

What will be the savings based on an annual production volume of 12,750 tons of broiler feed by using Pfizer Vitamin A-250 Palmitate in Gelatin?

$_____

b. You are making a vitamin A pre-mix and can use either A-30-P or A-250-P (see **a.**). Assume labor and overhead costs of $15.00 per ton and diluent costs of 3¢ per pound. Which source is most economical and what are the savings per 130 tons of pre-mix?

Most economical source (1) _____

Savings per 130 tons (2) $_____

3 A feed manufacturer receives an order for 6 tons of a supplement for fattening cattle containing the following ingredients:

30% Cattle Supplement (Fed at 2 lbs./head/day)

Ingredient	30% Supplement Pounds per ton
Alfalfa hay (sun-cured)	300
Milo	280
Cottonseed meal	500
Soybean meal, 44%	660
Cane molasses	200
Antibiotic, vitamins, trace minerals	60
	2000 lbs.

In addition to the above supplement, cattle are also receiving a free-choice mixture of barley and milo.

The alfalfa hay used in the above formula contains 17% protein and 10 milligrams of carotene per pound. How many lbs. of Pfizer Vitamin A-250 Palmitate in Gelatin, which contains 113,500,000 U.S.P. units per pound, must the manufacturer add to bring this ration up to optimum vitamin A level as recommended by leading universities?

_____lbs.

(NOTE: This may not be as easy as it looks. You should take into consideration such things as vitamin A status of the animal, carotene conversion ratio, the optimum level of vitamin A per head per day, the length of time supplement will be stored, the composition of the rest of the ration, etc.).

SHOW CALCULATIONS AND REASONS FOR YOUR DECISIONS ON SEPARATE SHEETS ATTACHED TO YOUR ENTRY BLANK.

CUT ALONG DOTTED LINE

ENTER NOW! Mail to:

Vitamin A Contest
Chas. Pfizer & Co., Inc. Dept. A.
235 E. 42nd St.
New York 17, N. Y.

Name_____

Job Title_____

Feed Company_____

Address_____

City_____ State_____

Vitamin A Palmitate in Gelatin

Pfizer

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Science for the world's well-being®

Use of Fats in Mixed Feeds May Increase: USDA

WASHINGTON — Use of fats in mixed feeds could increase to 1.4 billion lb. year in the next decade, according to a report by the U.S. Department of Agriculture. Present use of fats in feed is about 0.5 billion lb. a year.

The fats and oils industry needs new outlets for its large supplies, since the volume used in soapmaking has declined as the production of synthetic detergents has increased. The largest single new market for fats and oils is in animal feed, USDA says.

More fat use in feeds, according to feed manufacturers, will come because: Fat is a good source of concentrated energy. It increases feed efficiency, reduces dustiness, makes feed easier to handle, increases palatability, reduces wear on handling, mixing and other machinery, aids in homogenizing and stabilizing the mixture of fine-particled feed additives, supplies an added growth factor and gives feed a better appearance.

Poultry feeds use more fat than any other type of feed because they contain the largest percentages of added fat and they account for over one half of all mixed feeds commercially produced. Adding fat, from ½-2%, into all types of livestock feeds, is now practiced by some feed mixers. Also, fat addition to feed ingredients, namely alfalfa meal and cottonseed meal, in amounts ranging from ½-3%, is becoming more widespread, says USDA.

The estimate of a future annual use of 1.4 billion lb. of fats and oils in feeds is based on several trends:

(1) Expanding production of livestock and poultry; (2) expanding production of commercial feeds; (3) more pelleting of feeds; (4) more bulk handling of feeds; (5) wider use of high-protein, high-energy rations; (6) some use of larger percentages of fats in feeds; (7) widened recognition by feed manufacturers and livestock feeders of the advantages of adding fats to feeds; and (8) growing supplies of tallow and grease at relatively stable prices.

A free copy of "Fats Added to Feeds—An Economic Analysis," marketing research report No. 498, is available from the office of information, U.S. Department of Agriculture, Washington 25, D.C.

Plant Bonds Voted

COLLINS, MISS.—Voters of Covington County have approved an $800,000 bond issue for construction of a poultry processing and poultry by-products plant here for Mississippi Federated Cooperatives.

Estimated total cost of the project is $1 million.

The processing plant will provide approximately 42,000 cu. ft. of storage space, which is to be equally divided for frozen and unfrozen poultry. According to Claude Smith, director of the MFC poultry and livestock division, 10 million broilers and over a million hens will be processed annually at the new plant.

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NITROGEN PRODUCTS DIVISION
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see page 9

Peavey Announces Plans for Elevator

MINNEAPOLIS—Plans for a 525,000 bu. grain elevator have been announced by F. H. Peavey & Co. here. The new elevator is to be located in Valley Industrial Park, near Shakopee, 27 miles southwest of Minneapolis.

The Peavey announcement states that its plans are subject to approval of plans by the Minneapolis Area Development Corp., developer of the industrial park, for dredging the channel of the Minnesota River from Savage, Minn., 7.5 miles to the elevator site. The elevator would be some 18 miles from the Mississippi.

General contractor is McKenzie-Hauge-Gillis Co., Minneapolis. The concrete tank-type elevator with 18 bins is slated for completion July 1, 1962.

River, rail and highway transportation facilities are available.

Peavey's announcement regarding the elevator says that the terminal will be used both as a receiving point for country originated grain and as a transfer point for the firm's nine Minneapolis terminals. The new unit's operation is to be under the Minneapolis Terminal Division of F. H. Peavey & Co.

New Boralloy 350 is made with Boron to achieve a Brinnel hardness of 350. It resists corrosion, abrasion and can be cold formed, drilled, and welded as any other steel. Yet Boralloy's superior structural strength make it economical material for almost any milling application and is equally serviceable in both wet and dry use.

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Is it advertising, financing, sales aids, sales and program training or sales promotion? None of these!

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Isn't it time you began building greater profits on the firm foundation of quality feed and proven feed programs? To learn more about Kent's dealer program, special new-dealer benefits, and how you can become a Kent Dealer, write or call W. F. Schafenacker, Sales Manager, Kent Feeds, Muscatine, Iowa.

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THE FEED WITHOUT A FILLER

JOE BROOKS

BY AL P. NELSON

Joe Hears From The Farm Women

When Joe Brooks came home for roast beef dinner that night he seemed quite preoccupied. He kissed Mary lightly on the cheek, then went into the living room, picked up the newspaper and started to read it.

Just then the twins came in the back door. They were noisy and garrulous. "Oh, mother, we had a dandy ball game," cried Jimmie, "and I hit a triple. Yippee!"

"Ssh!" whispered Mary. "Dad is home and something's bothering him. Be quiet. Don't get on the wrong side of him. Go wash up now. Dinner will be ready in a few minutes."

The 10-year-old twins walked slowly into the living room and headed for the stairs. "Hello, Father," said Jimmie, in a well modulated voice.

"Hello, Father," said Joe, Jr., in a like manner.

Joe looked up with a frown. "Oh, hello, boys," he said. Were these his sons? Gosh, they were better mannered than he thought. Well, maybe some of those lectures had taken hold.

At dinner table, Mary beamed. "Here's a nice cut of beef, Joe," she said. "Just the way you like it. And here's some extra brown gravy on your potatoes."

"Oh, thanks," Joe said listlessly.

Mary looked at the twins, and the twins looked back at her. No words were spoken, but that mysterious understanding that often exists between people who are close in spirit, said, "Papa's not with us tonight."

Mary and the twins ate well, but Joe didn't seem to have much of an appetite. After the meal, the twins said, "Mother, may we go out and play ball with the kids for awhile?"

"For one hour you may," Mary said firmly. "Remember, one hour. No more. The dishes will be waiting for you when you come back."

"Oh, mother," protested Joe, Jr., "the other boys don't have to do dishes. All they have to do is play all the time."

"I don't care what the other boys do," Mary said. "You do dishes. I have plenty to do every day making beds, washing, vacuuming and cooking meals."

"Yes, Mother," Jimmie said meekly. Chastised, the boys went outside.

"Mary, you certainly discipline those boys well," Joe commented sincerely. "You're not mean—you're just firm."

Mary smiled sweetly. "Thanks, Joe. Now, what is worrying you?"

Joe frowned. "What's worrying me? Do I look like something's worrying me?"

"Yes, decidedly."

"Say, I didn't think it showed that much," replied Joe. He reached into his pocket and brought out a folded piece of paper. "I got this in the mail this afternoon. Read it."

Mary unfolded the paper and read:

"Dear Mr. Brooks:

"Thanks so much for taking our husbands out to a stag steak supper last Thursday night and leaving us at home to baby sit. This is something we seldom get to do.

"Have you ever thought who helps Pa pay for all the feed he buys, or who helps him gather eggs, milk cows and feed poultry and livestock?

"We feel very much left out!!!

"We are going to cut Pa off his allowance, and he will have to pay for the feed out of his own pocket.

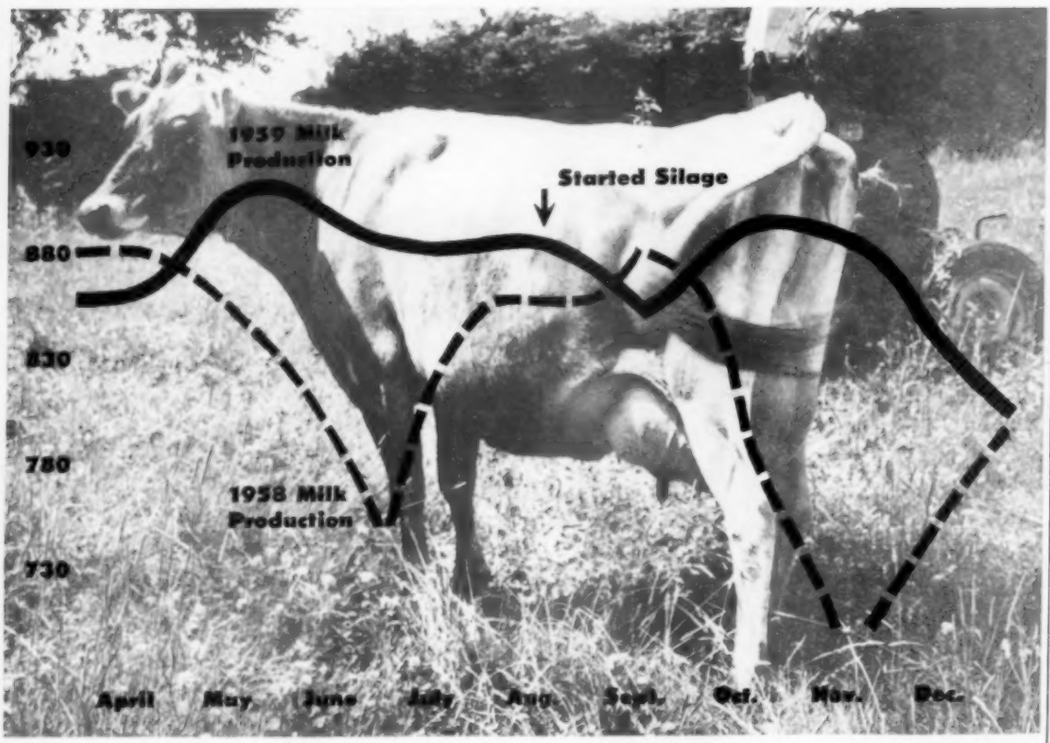
"Sincerely,

"The Working Wives of Farmers."

Mary began to laugh until the tears rolled down her cheeks. "Oh, Joe, this is wonderful, simply wonderful. At last some women are beginning to stand up for their rights."

Joe's eyes were wide. "What? Are you—you taking their part?"

"Why, certainly," Mary said. "How would you like it if I went out to women's meetings almost every night and left you home alone with the twins, night after night, week after week, year after year? How would you like it if I got invited to steak dinners and things like that, while you stayed home eating bologna,



Figures Don't Lie ---

Figures don't lie, agrees Wilmington Prince Minnie, top milk and butterfat producer of Wilmington College, Ohio's Jersey herd. Two years ago the herd's milking ration was amended to include 600 pounds of **Schenley Dried Distillers Grains** per ton of Grain ration. Monthly milk production immediately increased 50 pounds per cow and has remained higher and more consistent than during the comparable period for any previous year. Minnie has this year averaged almost 80 pounds of butterfat per month, with over 94 pounds in March and April, compared with only 607 pounds for the entire 1959 period, thanks to the inclusion of **Schenley's Distillers Dried Grains** in her diet. **Schenley Distillers Dried Grains** added to your milking grain ration can mean increased milk and butterfat production whatever the season. Write to:

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NEWS BULLETIN

MERCK

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sandwiches or something like that?"

Joe swallowed hard. "Why, Mary, you're mad."

"Sure, I'm mad. I'm mad because this is a man's world, that's why. Women have to do this and do that for men. They are their cooks, wives, button sewers, errand boys, sock menders and a million other things. And what do they get out of it? They can sit home and wash dishes while their husbands go out for steak dinners and smoke big cigars."

"But that's business, Mary," protested Joe.

"Business? Well, many wives are part of their husbands' businesses. Look at the work I do for you on ads, making doughnuts and coffee for your affairs, suggesting ideas, etc. Do you ever give me a hundred dollar bonus like you do your employees at Christmas? No—you don't even buy a mistletoe and hang it up." Tears came into Mary's eyes and she got up quickly and ran into a downstairs bedroom and slammed the door.

Joe sat with mouth agape. "Holy cow!" he gasped. "A guy never can understand women. Here I come home waiting to be consoled and Mary takes the part of the farm women." He went to the door of the bedroom and knocked. "Mary, can I come in?"

"No, go away. Go downtown to one of your old feeder meetings."

"Mary, I'll put on a big affair for the farm women, if you'll help me. We'll have entertainment. I'll butter them up—tell them how important they are on the farm."

No answer.

"And I'll get some prizes for them, decorate the tables with roses—but I do want to give them a little talk on feed, too. You can't deny me that."

A tiny voice came from the bedroom. "A good steak dinner?"

"The best that Happy Harrigan can put out. May I come in now?"

A muffled voice came from inside the room. "All right. The door's unlocked."

Amburgo Co. Holds Week-Long Meeting

PHILADELPHIA—A study of the formula feed industry's nutritive needs and the development of new, efficient services for all segments of the industry, highlighted a week-long sales and nutrition symposium of the Amburgo Co., Philadelphia.

The meeting was conducted at Golden Acres, Amburgo's demonstration farm in Bucks County, Pa. Company field representatives from the entire country attended.

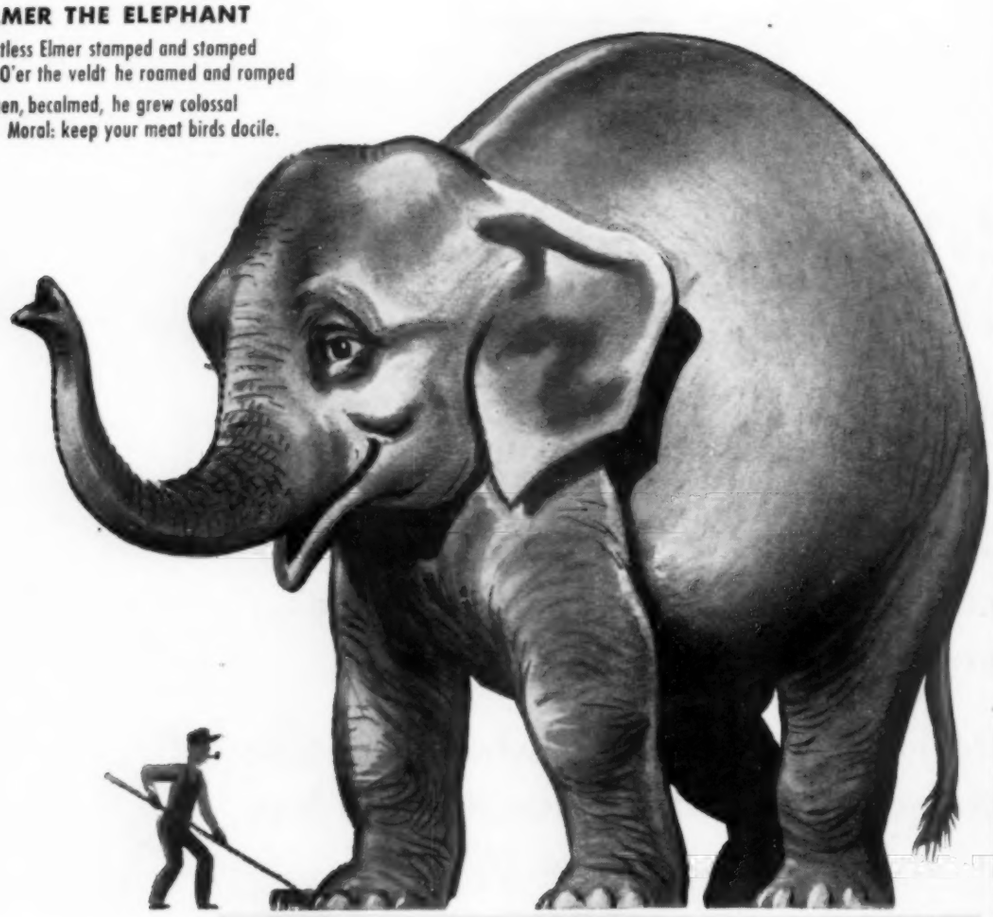
Dr. Milton Scott, professor of animal husbandry, Cornell University, summarized new trends in unidentified growth factors (UGF) nutrition, in an opening session address. He also lectured on nutrient requirements and allowances for poultry and turkeys. Dr. Scott closed his lecture by stressing the latest findings on fat soluble vitamins A and E, a subject on which he has conducted studies. Dr. Scott, who recently returned from Denmark, also discussed his observations of livestock raising in Europe and Middle East countries.

Samuel M. Golden, president, announced Amburgo's new line of feed supplements for use by feed manufacturers. The supplements were developed to meet specific formula feed objectives, and to take into consideration differences in geographical areas of the U.S., he said.

Practical farm animal rations were also discussed. Stressed was the company's "feed engineering technique, designed to bring about maximum feed performance at lowest cost." The final day, Amburgo representatives told methods used to sell the Amburgo program.

Dr. Hal Yacowitz, consultant to the Amburgo organization, was chairman of the workshop.

ELMER THE ELEPHANT
Restless Elmer stamped and stomped
O'er the veldt he roamed and romped
Then, becalmed, he grew colossal
Moral: keep your meat birds docile.



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LIPONIZING allows birds to concentrate on converting feed to quality meat.
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Features *no other bulk bodies have* include a unique rear partition which swings down to form a self-unloading funnel, ball bearing trap doors, and the foolproof Dodgen swivel-spout auger system. Truly an all-purpose bulk body that will pay you to own and operate!

Bulk feed driver, Thomas McBurney of Hastings Hatchery says "This Dodgen rig is the best I've seen. It's easy to operate in all kinds of weather and works out real well for handling bulk and bags on the same trip."

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Take advantage of the five new regional Dodgen sales centers and mounting points. Let us show you all the reasons why a Dodgen bulk body means more profit and easier operation to you. Call today for free, no-obligation information at your nearest Dodgen office!

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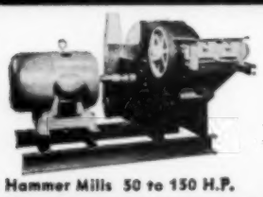
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USDA Presents Commodity Outlook

WASHINGTON—The U.S. Department of Agriculture has summarized the current agricultural scene, including some specific views to the future through the end of 1961 and, in some instances, into 1962.

Overall, USDA foresees a farm output total in 1961 very close to last year's record level. The larger output of livestock and livestock products is expected to be slightly more than offset by a reduced output of crops due to the Feed Grain Program and early season drouth.

Specifically, USDA economists expect commercial beef production to continue a little above 1960 for the fourth quarter; additional heavy hog slaughter is expected after a heavy September slaughter; milk production has been well above a year ago with milk-feed price relationships at or near all-time highs; egg production is expected to continue larger than a year earlier into the spring of 1962, with prices remaining below the previous year's mark; laying numbers compared with last year will likely not increase further; prospects for increased broiler prices before year's end are slight; turkey prices will continue to reflect the large supply; the feed grain total is estimated to be 3% below last year, and soybean crushings are at a record.

A categorical breakdown as seen by USDA:

Beef—Commercial beef production in August and September was running slightly above a year ago and will likely continue a little above for the fourth quarter, an indication of a generally stable price picture for the rest of the year.

Increased turkey supplies and hog slaughter are seen as additional competition to beef but, in general, a steady price picture appears in the offing.

Hogs—Hog slaughter in September moved above a year ago, and additional increases are expected in October and November. Hog prices are expected to work lower this fall than last fall. Prices may average somewhat below the $16.60 cwt. last November.

Sheep and Lambs—The high level of slaughter this summer more than accounted for the increase in the size of the crop over 1960 so that there will be a decrease in the inventory of lambs. Improved prices are seen.

Milk Production—Milk production for the first nine months, 96.3 billion pounds, was 1.2 billion pounds above a year ago. Production per cow since May has moved further above the 1960 rate. Usually, year-to-year gains in output per cow are dampened when farmers reduce their rate of culling as they have been doing this year. But the downward effect of less rigorous culling has been far overshadowed by two other developments: Above average pasture conditions, and a sharp increase in the quantities of concentrated feed to milk cows.

Milk-feed price relationships have been at or near historic highs since the beginning of the year. Heavier feeding on the part of farmers is largely in response to these favorable relationships, but it also reflects the continuing improvements in the general level of management on dairy farms.

Eggs—Monthly egg production is likely to be larger than a year earlier into the spring of 1962, and prices will probably remain below last year through at least the first quarter of 1962.

Although additional price fluctuations will probably occur this fall, prices are expected to average within the range of August-September.

The Oct. 1 laying flock was 5.5 million larger than last year's flock.

Questions I'm asked about

Dr. G. C. Wallis, recognized authority in the field of Vitamin D₃ nutrition for livestock

Q: Will two to five pounds of good sun-cured hay provide enough vitamin D for my dairy cows?

A: No. Sun-cured hay varies widely and unpredictably in vitamin D content—80 units to 1,250 units per pound have been reported for sun-cured alfalfa hay. Two to five pounds of lower potency hay would provide about 200 to 500 units per cow per day which is insignificant. Even though the hay happened to be high in vitamin D, there would be only a modest contribution made toward the suggested optimum intake of 6,000 to 8,000 units per pound of dairy ration.

Q: How can I check to make sure my dairy cows are receiving enough vitamin D?

A: Good safeguards can be taken but an absolute check is probably not possible. Optimum vitamin D levels for top performance and longevity have not been clearly established but work is in progress. Mild deficiencies are often difficult or impossible to detect but they can be costly. Available information suggests the use of 6,000 to 8,000 units of vitamin D per pound of complete grain ration. Confidence in your feed manufacturer and the good performance of his well-formulated rations would be important for users of commercial feeds.

Q: Is there any danger of my feeds having too much vitamin D?

A: Our recommendations for the vitamin D fortification of feeds are well within the generally recognized safe limits of vitamin D intake for the different species of animals. With careful methods and efficient modern mixing equipment feed manufacturers are able to achieve good distribution of micro-ingredients. The chance of overdosage is remote.

Q: How much vitamin D do baby pigs and growing-finishing pigs need?

A: Early weaning, fast growth, confinement raising, multiple farrowing and other changes have greatly increased nutritional stress factors since the vitamin D requirements of pigs have been carefully studied. Based largely on amounts that have given good results in experimental and practical swine raising programs, a number of Experiment Stations are suggesting about 500 units of vitamin D per pound of milk replacer and starter with somewhat smaller amounts as pigs approach market weight.

Q: Do sheep get enough vitamin D from natural sources?

A: Not always. For instance, in recent English studies lambs from ewes given supplemental vitamin D averaged 6 pounds heavier at weaning in one flock and 9 pounds heavier in another than lambs from ewes given no vitamin D. Fleeces from experimental animals were more than ¼ pound heavier, graded higher, and brought a premium price.

A. C. Wallis

For more complete answers to any of these questions write to Dr. G. C. Wallis, Director of Nutrition, Agricultural Department, Standard Brands Incorporated, 625 Madison Avenue, New York 22, N. Y.

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It's all part of the educational FIDY program to emphasize that today's added stress factors have changed livestock nutrition requirements. More than ever, farmers must be sure that lack of a dependable Vitamin D source is not a limiting factor in their feed.

Be sure to fortify your feeds with FIDY—Fleischmann's Irradiated Dry Yeast. Here is a rich source of Vitamin D_3 that is dependable—and is economical, easy to use, and truly outstanding in dispersion qualities.

And, if your feeders have questions about Vitamin D nutrition, just have them address—

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Oct. 1 numbers of pullets not of laying age, however, were down 6.7 million from 1960. Subsequent additions to the laying flock during the fall will not likely increase further laying numbers compared with last year. In the first 3-4 months of 1962, the laying flocks are likely to be only slightly, if any, larger than the year before. Rate of lay per bird is expected to exceed year ago levels during the fall and winter months. On balance, these factors are likely to hold monthly egg production above a year earlier into the spring of 1962.

Broilers—Broiler prices to growers at 11.7¢ lb. in mid-September were 4¢ below a year ago and the lowest mid-month price ever reported. The prospect for significant price increases before the end of the year is slight, since the volume of marketings through November and into December will continue close to last year.

Recent cutbacks in settings will affect marketings of broilers in December, USDA says.

Turkeys—The crop of 107 million turkeys raised this year is 26% larger than last year's record. Prices during the remainder of the year will continue to reflect the large supply. Storage holdings by Oct. 1 had increased to 268 million pounds, 82 million pounds more than a year earlier.

Feed Grains—The total supply of feed grains and other concentrates for the 1961-62 marketing year beginning Oct. 1 is estimated on the basis of October conditions at 253 million tons, 3% below the record supply last year. This includes the smaller 1961 crop, a record carryover of feed grains, and a larger supply of byproduct feeds. Feed grain production, based on Oct. 1 indications, will total 137 million tons—17 million tons, or 11%, below the record output in 1960, but slightly above the 1955-59 average.

The 1961 crop probably will be a little below total 1961-62 utilization, resulting in a moderate reduction in carryover during 1961-62. Feed grain prices probably will decline less this fall than in 1960, when they dropped 13% from September-November.

Oilseeds — Soybean crushings during the 1960-61 marketing year ended Sept. 30 are placed at a record 405 million bushels.

Soybean supplies in the 1961-62 marketing year are placed at 715 million bushels, up 133 million from the year before. A buildup in carryover stocks by Oct. 1, 1962, will occur.

The bean crush for oil and meal in 1961-62 is expected to be 5% above the record 405 million bushels last year. A factor limiting the crush will be the record carryover of soybean oil on Oct. 1, 1961—estimated at the bean equivalent of around 65 million bushels.

Prices to farmers during the heavy soybean harvesting season are likely to dip a little under the national average support rate of $2.30 bu. (No. 2 soybeans). After the heavy harvest period, prices will likely return to the loan level, and advance seasonally to reflect storage charges.

Feed Firm Remodels

MUSKOGEE, OKLA.—Cole Grain Co. here has just completed a remodeling and reflowing project which increases the firm's capacity to 20 tons per hour, it was announced.

A new push button mixing system, new pellet equipment and a new bulk handling system were installed. Labor was furnished by the Cole firm and Forster Manufacturing Co., Ada, Okla., provided the equipment, engineering and supervision.

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Big Savings for Poultrymen

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Shellmaker is slowly soluble in the gizzard to supply most effectively all the extra calcium the hen needs for building strong egg shells. It is also hard enough to do a good grit job as shown in feeding trials at several state experiment stations.

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Next time your trucks are in the vicinity of John Deere's plant at Pryor, Oklahoma, take advantage of the F.O.B. plant price . . . truck docks open 7 days weekly. You can be sure we will "stretch" too, in giving you the kind of personal service you want. Call or write today for prices, free literature and samples.

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Pig Rations Studied By VPI Researchers

BLACKSBURG, VA.—Pigs apparently need high quality protein feeds to make efficient gains, but not to produce meat of high quality.

In studies at Virginia Polytechnic Institute, Blacksburg, pig rations made up of proteins which were low in an essential amino acid (lysine) were fed to hogs to find the effect this ration may have on protein quality of the meat.

Meat from test hogs was fed to laboratory animals to determine its quality or growth-promoting ability. Rats were fed for six weeks on a ration of pork from hogs fed poor quality protein. They grew well and maintained a positive nitrogen balance, reports Dr. R. F. Kelly.

He says, "While definite conclusions cannot be made at this time, it appears that the pig will produce a high quality protein meat even though its ration is limited in an essential amino acid."

SOYBEANS

(Continued from page 42)

6. Retention time in extruder section—approximately 50 seconds.

Summary of Results—A complete summary of the experimental data is shown in Table 2.

1. Pigs fed the diets containing either soybean oil meal (Lots 1 and 2) or heated soybeans (Lots 3 and 4) gained significantly faster than those fed raw soybean diets. Although the pigs fed the diet of heated soybeans supplemented with methionine appeared to gain the most rapidly, the differences among lots 1 through 4 were not statistically significant.

2. DL-methionine added to either ground heated or raw soybean diet increased the average daily gains, although the degree of improvement was not statistically significant.

3. The efficiency of feed utilization, when compared to that obtained with the regular SOM diet, was improved 8% when heated soybeans were fed (Lots 3 and 4), and 6% when the diet containing added soybean oil (Lot 2) was fed.

4. Supplementary DL-methionine did not appear to affect feed efficiency of pigs fed ground heated soybeans; however, in the case of pigs fed raw soybean diets, methionine improved feed efficiency about 13%.

Program Plans Told By Vitamin Chemists

CHICAGO—Program plans including the names of speakers and the topics for the 1961-62 season have been announced by the Association of Vitamin Chemists.

Each of the meetings of the group will be held at 7:30 p.m. on the dates indicated in the Illini Union Building, 715 South Wood Street, here, according to Dr. C. E. Graham, chairman of the public relations committee of the association.

Program dates, subjects and speakers are: Nov. 9, Vitamin K Biosynthesis and Requirements, Dr. Paul Griminger, department of poultry science, Rutgers University; Dec. 7, Carotenoids as Food Colors, J. C. Bauernfeind, director of food and agricultural product development, Hoffmann-La Roche, Inc., Nutley, N.J.; Jan. 11, The Role of Hormones in Protein Synthesis, Dr. A. V. Nalbandov, department of animal science, University of Illinois; Feb. 8, Problems in Food Processing, H. A. Hollander, Quartermaster Food & Container Institute, Chicago; March 8, Problems Relating to Food and Feed Additives, Douglas Frost, Abbott Laboratories, North Chicago, and May 10, Vitamins and Transplantation Immunity, A. E. Axelrod, school of medicine, University of Pittsburgh.

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PERMA-E contains 20,000 I.U. units of Vitamin E per pound, based on D-alpha tocopherol. Other potencies are available on request.

NUTRITIONISTS are paying increased attention to Vitamin E because of the ability of alpha tocopherol, the naturally occurring Vitamin E, to prevent oxidation and rancidity of fats. PERMA-E provides a high concentration of these natural tocopherols in a unique stabilized form in a base of high nutritional value.

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Experiment With Fattening Lambs On Low Roughage

BERKELEY, CAL.—The fattening of lambs on a low-roughage ration was studied in two experiments to determine whether sheep, like cattle, can be fattened on rations with low fiber content. The experiments were conducted at the University of California, Davis, by J. H. Meyer and A. O. Nelson.

Rations with 5% and 30% alfalfa hay were compared in the first experiment. Steamed, rolled barley, protein supplements, fat as stabilized tallow, and minerals comprised the remaining portion of the rations. Approximately twice as much fiber was present in the 30% alfalfa hay ration as in the 5% alfalfa hay ration. Both rations were unusually high in protein to allow a comparison of low and medium-fiber rations.

Daily gains were significantly reduced when the low-hay or fiber ration was fed. This was partially caused by a longer adjustment period to bring the animals on feed. But the reduction in gain was compensated, to a large degree, by a higher dressing percentage for the lambs fed the low-fiber ration. The University of California researchers found that the carcasses produced were exactly the same in weight—58.4 pounds—indicating that the difference in gain was due to rumen fill. No difference was found in carcass grade.

Though less feed was consumed by the lambs fed the low fiber ration, feed utilization efficiency was reduced as compared to lambs on higher fiber ration.

In the second experiment, the professors divided the lambs into three lots. The lambs in lot one were fed a low fiber ration and compared to the lambs in lot two and in lot three that were fed a higher fiber ration in both the milled and pelleted form. The lambs in lot one received steamed rolled barley and a supplement devised to satisfy further protein, vitamin and mineral needs not supplied by the barley. The lambs in lot two received a mixed milled ration. Those in lot three received a Sudan and alfalfa hay pellet mixed with steamed rolled barley.

The California researchers found there were no significant differences in daily gain among the lots. However, less feed was consumed per day by the lambs in lot one, on the low-fiber ration, as in the first experiment, but, in the second experiment, there was an improvement in efficiency of feed utilization. Also, there was an improvement in dressing percent for lot one, but little difference in carcass grade.

In both experiments, more time and care were required to accustom the lambs to the low fiber ration than for the lambs on the other rations. From 10 to 14 days were required to bring the animals on feed. It proved necessary to have the low fiber ration available to the animals at all times. When twice-a-day feeding was attempted, difficulty was experienced in maintaining high feed intake.

There may be situations when an essentially all-concentrate ration has advantages over a ration containing more hay. The high-concentrate ration requires less storage space and less labor in preparation and in feeding. Also, concentrates in California are often a cheaper source of net energy than roughages. A third situation would be when lamb producers and feeders need to finish lambs more rapidly than is possible under range or pasture conditions in order to take advantage of earlier marketing, or to avoid the deleterious effect of oncoming wet weather in the fall. Lambs being produced on the range or irrigated pasture may be approaching a choice finish, but the range or pasture might not be sufficient to finish the lambs to the desired grade. In such a case, it would not be difficult to fatten the lambs on an essentially all-concentrate, low-fiber ration because little milling equipment would be needed. Possibly the lambs could be self-fed barley on the range or pasture and not placed in dry lot, the Davis studies suggested.

The current experiments show that it is possible to feed fattening lambs a ration composed of 90-95% concentrate and little hay. Satisfactory gains can be obtained on a low-fiber —6-7% crude fiber—ration. Yield of carcass or dressing percent was higher for sheep fed the low-fiber rations.

Market Cut Chicken

BATESVILLE, ARK. — Several months ago the J. K. Southerland poultry processing plant here started preparing cut-up chicken for the retail grocer markets. At first, the larger consignments were made to the Kroger Co. of Arkansas for statewide distribution through its stores. The cut-up broilers were ice-packed in 10 lb. bags, with four bags being in each shipping box.

The cut-up chicken began selling well. Handling this type broiler has become more common in even the smaller grocery stores. This plan has been one among several which have been applied in an effort to stimulate more purchasing of poultry products.

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Display bags of Sterling "Halite," the ice melter so many folks rely on for walks, drives, loading docks, doorways, paths and other key areas that have to be kept ice-free. And "Halite" is great for extra traction under car and truck wheels to "keep 'em rolling" all winter long. Comes in 100-lb., 50-lb., 25-lb. (with plastic carrying handles) and 10-lb. bags. Show 'em all—sell 'em all!

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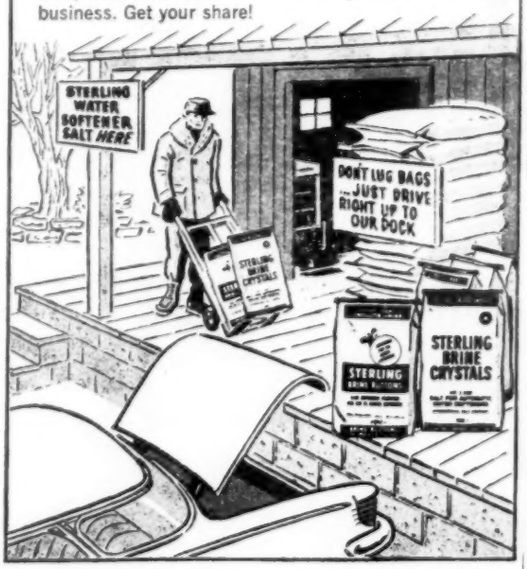
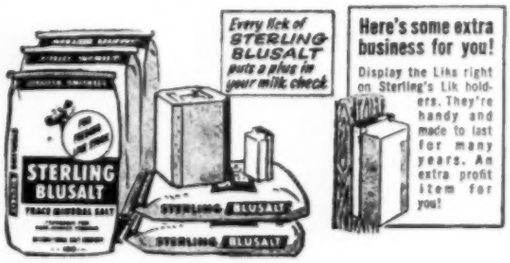


Wintertime is Sterling Blusalt Lik Time

For best health, cattle need extra salt—and a full measure of trace elements. Home-grown feeds and roughages simply don't provide enough—and the easiest way to make up the lack is to put a Sterling Lik holder with a 4-lb. Blusalt Lik by each stall. Display these Liks . . . put up a sign next to them . . . and don't forget bags of Blusalt for free-choice feeding and feed mixing—and Blusalt blocks for the loafing shed.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on how to use nf-180 prior to vaccination to reduce condemnations

Here's a totally new concept of CRD prevention . . . one that has effectively reduced condemnations in tests involving thousands of birds. It's based on feeding nf-180 prior to stress periods such as vaccination. Here's how it works:

When you vaccinate, you often inadvertently set the stage for a CRD outbreak. The reason is that 3 agents are usually necessary to cause CRD complex . . . PPLO, coliforms and a virus. When a bird harboring PPLO and coliform organisms is vaccinated with a virus, it creates a stress. This stress triggers a rapid reproduction of the usually harmless coliforms, causing lesions in the air sacs, on the kidney capsule and on the liver.

If the gram negative coliform bacteria can be kept inactive during vaccination, condemnations can be substantially reduced.

What can you do?

Certainly you can't stop vaccinating. But you can overcome the *stress* of vaccination with nf-180.

nf-180 is the most effective gram negative (coliform) drug available. It checks the reproduction of the coliform agents . . . keeps them from producing lesions which result in condemnations. Also, since nf-180 is effective against more poultry diseases than any other drug, you get protection against a host of secondary invaders.

For low-cost protection against condemnations due to CRD-air sac complex, feed a broiler ration containing 100 grams of furazolidone (nf-180) per ton beginning at least one week before vaccination and continuing through the stress period.

The following college tests (more available on request) prove nf-180's effectiveness.

Why nf-180 is best in combating CRD complex

CRD complex is caused by a number of primary and secondary organisms.

nf-180 is the most effective drug you can use against CRD complex because *nf-180 prevents and controls more poultry diseases than any other drug you can buy.*

nf-180 kills germs. Starves them to death . . . doesn't merely slow them down or hold them in check as antibiotics do.

And because nf-180 doesn't allow germs to live and breed sturdier offspring, there is little chance for germs to build resistance to nf-180.

Also, nf-180 is safe and nontoxic. It can be fed right up to marketing. No withdrawal period is required. Insist on nf-180 in your broiler feed to reduce the risk of condemnations . . . to help you market more broilers at less cost, with far more peace-of-mind.

TEST #1 Vaccinated for Newcastle and bronchitis at 2 weeks

Treatment	No. of Birds	Ave. Market Wt. Lb.	Feed/lb. Gain Lb.	% Mortality	% Condemnations	% Total Loss
Control	4,800	3.27	2.61	14.29	8.75	23.04
Furazolidone* 100 gm./ton	7,200	3.37	2.53	6.49	3.25	9.74

*Fed first 3 weeks.

TEST #2 Vaccinated for Newcastle and bronchitis on 24th, 42nd days.

Control*	5,100	3.18	2.74	5.73	2.52	8.25
Furazolidone** 100 gm./ton	5,100	3.21	2.62	1.88	1.65	3.53

*200 grams chlortetracycline/ton in low calcium feed for first 5 days.
**Feed 15th through 49th day. No antibiotics, normal calcium.

TEST #3 Vaccinated for Newcastle and bronchitis at 2 weeks.

Control	4,800	3.19	2.41	2.52	3.10	5.62
Furazolidone** 100 gm./ton	7,200	3.23	2.37	2.28	0.84	3.12

**Fed first 3 weeks.

TEST #4 Effect of furazolidone under farm conditions.

Control*	17,544	3.50	2.41	9.31	4.20	13.51
Furazolidone** 100 gm./ton	15,096	3.65	2.24	4.91	2.03	6.94

*Contained commercially available coccidiostat.
**Contained no coccidiostat. Furazolidone fed at 100 gm./ton first 18 days, followed by 50 gm./ton level to market.

One thing for sure — *prevention* rather than *treatment* of CRD outbreaks is the answer to reducing condemnations. Once the coliform organisms are triggered off, the damage is done and the lesions remain for the inspector to see. Here's how to medicate:

Start chicks on nf-180 — Use the 100 gram level of furazolidone and keep birds on nf-180 until after the first vaccination. This helps prevent CRD, protects against vaccination stress, reduces early mortality, improves feed conversion and growth. (And you won't need a separate coccidiostat during this time.)

Second Vaccination — At least a week before your second vaccination, come in again with the 100 gram level of furazolidone. Continue this through the stress period to prevent CRD outbreaks.

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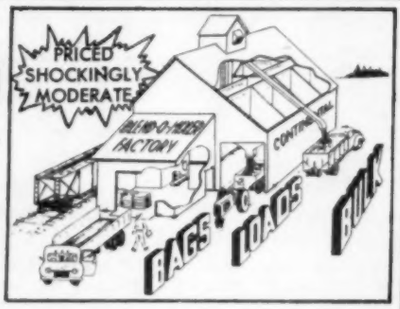

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A Comparison of Five Litter Materials Both as New And Re-Used Litter for Broilers

By Frank A. D'Armi

University of Delaware Substation Division

Georgetown, Del.

A one-year, four-flock study comparing sawdust, shavings, wood chips, crushed corn cobs and peat moss, both as new and re-used litter, has recently been completed.

This comprehensive study measured the effect of the various litter materials on such points as average weight, feed efficiency, mortality, culls left in the house, condemned birds at the processing plant, market quality and litter costs. The data was collected on four pens of 250 birds for each of the five litter materials in the first experiment. For each of the remaining three experiments, two of the four pens of 250 birds on each litter material were cleaned out, washed down, disinfected and new litter of the same type added. The other two pens on each litter material were left uncleaned and the old litter used again with only the severely caked areas removed prior to the placement of new chicks.

Vantress X Arbor Acre chicks were used in all four experiments. A commercial broiler ration (starter crumbles for four weeks and finisher pellets for the remainder of nine weeks) was used. The vaccination schedule consisted of Newcastle-bronchitis at one week and Newcastle alone at 4½ weeks, administered each time by

TABLE 1. Broiler Performance on Five (New) Litter Materials

Litter	Expt. No.	No. birds	Average weight	Feed efficiency	Per cent mortality	Per cent culls	% Condemnations
Sawdust	1	485	3.47	2.32	2.45	.62	.00
Sawdust	2	484	3.49	2.36	3.39	.21	.41
Sawdust	3	486	3.70	2.27	4.52	.00	.00
Sawdust	4	474	3.73	2.14	5.95	.63	.42
Average sawdust		1,929	3.60	2.27	4.09	.36	.21
Corn cobs	1	482	3.53	2.33	4.55	.21	.00
Corn cobs	2	489	3.53	2.31	2.20	.00	.82
Corn cobs	3	468	3.66	2.28	5.84	.00	.85
Corn cobs	4	486	3.77	2.09	3.57	.41	.83
Average corn cobs		1,925	3.62	2.25	4.04	.16	.62
Peat moss	1	473	3.52	2.31	3.40	.21	.00
Peat moss	2	469	3.63	2.38	6.39	.00	.85
Peat moss	3	479	3.68	2.25	4.39	.84	.84
Peat moss	4	481	3.72	2.13	3.99	.21	1.04
Average peat moss		1,902	3.64	2.26	4.54	.32	.69
Shavings	1	476	3.50	2.33	3.96	.63	.00
Shavings	2	481	3.60	2.38	3.61	.62	.21
Shavings	3	477	3.70	2.27	3.64	.00	.42
Shavings	4	492	3.67	2.12	2.96	.81	.61
Average shavings		1,926	3.62	2.27	3.54	.52	.31
Wood chips	1	470	3.53	2.32	6.75	.21	.00
Wood chips	2	473	3.57	2.39	5.40	.42	.64
Wood chips	3	490	3.69	2.26	2.20	.20	.00
Wood chips	4	481	3.69	2.13	5.69	.00	1.87
Average wood chips		1,914	3.62	2.27	4.52	.21	.63
Test average		9,596	3.62	2.27	4.15	.31	.49

Above figures each represent the average of two pens of 250 birds.

TABLE 2. Broiler Carcass Quality on Five (New) Litter Materials

Litter	Expt. No.	No. graded	Per cent A's	Per cent flesh	Per cent bruise	Per cent blister	Per cent C's
Sawdust	1	236	85.17	2.12	5.51	6.78	.42
Sawdust	2	201	91.04	2.49	1.99	4.48	.00
Sawdust	3	255	85.49	3.53	3.92	6.67	.39
Sawdust	4	237	86.50	6.33	4.22	1.27	1.69
Average sawdust		929	86.87	3.66	3.98	4.84	.65
Corn cobs	1	239	80.75	2.93	4.18	11.72	.42
Corn cobs	2	219	81.74	8.68	1.37	8.22	.00
Corn cobs	3	224	73.21	10.71	4.91	11.16	.00
Corn cobs	4	264	81.82	3.41	4.92	9.47	.38
Average corn cobs		946	79.49	6.24	3.91	10.15	.21
Peat moss	1	232	87.50	3.02	6.90	2.59	.00
Peat moss	2	187	94.12	2.67	2.67	.53	.00
Peat moss	3	217	78.34	8.29	8.29	2.76	2.30
Peat moss	4	239	87.03	5.02	3.77	2.09	2.09
Average peat moss		875	86.51	4.80	5.49	2.06	1.14
Shavings	1	248	88.31	.81	6.85	4.03	.00
Shavings	2	215	94.88	2.33	2.33	.00	.47
Shavings	3	227	82.38	5.73	3.08	7.93	.88
Shavings	4	241	89.21	1.66	4.98	3.32	.83
Average shavings		931	88.61	2.58	4.40	3.87	.54
Wood chips	1	241	88.38	.83	3.32	7.47	.00
Wood chips	2	221	95.02	.45	2.26	1.81	.45
Wood chips	3	234	79.06	5.98	5.98	8.97	.00
Wood chips	4	235	88.09	2.55	2.13	3.40	3.83
Average wood chips		931	87.54	2.47	3.44	5.48	1.07
Test average		4,612	85.78	3.95	4.23	5.33	.72

Above figures each represent two pens of 250 birds of which approximately 50% were graded.

TABLE 3. Broiler Performance on New vs. Old Litter

Litter	Expt. No.	No. birds	Average weight	Feed efficiency	Per cent mortality	Per cent culls	% Condemnations
New	1	2,396	3.56	2.37	4.20	.25	.59
New	2	2,400	3.69	2.27	4.12	.21	.42
New	3	2,414	3.71	2.12	4.43	.41	.96
Average all new		7,210	3.66	2.25	4.25	.29	.65
Old	1	2,338	3.60	2.40	6.16	.68	1.33
Old	2	2,349	3.77	2.26	6.15	.38	.81
Old	3	2,374	3.73	2.12	6.28	.55	1.14
Average all old		7,061	3.70	2.25	6.19	.54	1.09
Test average		14,271	3.68	2.25	5.22	.41	.87

Above figures each represent 10 pens of 250 birds.

TABLE 4. Broiler Carcass Quality on New vs. Old Litter

Litter	Expt. No.	No. graded	Per cent A's	Per cent B's: Flesh	Bruise	Blister	Per cent C's
New	1	1,043	91.28	3.36	2.11	3.07	.19
New	2	1,157	79.86	6.74	5.19	7.52	.69
New	3	1,216	86.43	3.78	4.03	4.03	1.73
Average all new		3,416	85.69	4.65	3.83	4.92	.91
Old	1	1,122	90.91	2.50	2.94	3.39	.27
Old	2	1,161	85.36	2.33	4.05	7.84	.43
Old	3	1,162	88.55	4.48	2.41	3.70	.86
Average all old		3,445	88.24	3.11	3.13	4.99	.52
Test average		6,861	86.97	3.88	3.48	4.96	.71

Above figures each represent 10 pens of 250 birds of which approximately 50% were graded.

TABLE 5. Causes of Mortality of Birds on New vs. Old Litter

Disease	New litter: Per cent of chicks started	New litter: Per cent of total mortality	Old litter: Per cent of chicks started	Old litter: Per cent of total mortality
Naval infection*	1.18	27.81	1.51	24.41
Leukosis	.16	3.75	.17	2.78
C. R. D.	.78	18.44	.98	15.85
Synovitis	.01	.31	.01	.21
Worms	.08	1.88	.15	2.36
Aspergillosis	.03	.63	.09	1.50
Non-specific	2.01	47.19	3.28	52.89
Totals	4.25	100.01	6.19	100.00

*Not believed to be influenced by type or condition of litter.

the dust method. The management was the same for all pens and similar to that seen under commercial conditions.

Corn cobs as used in these experiments were crushed and the size varied largely between ¼ in. to 1 in. in size. Screening of the cobs gave the following sizes: 18.75% smaller than ¼ in. in size, 61.25% between ¼ in. and ½ in. in size, 18.75% between ½ in. and 1 in. in size, and 1.25% between 1 in. and 1½ in. in size.

The accompanying tables present some of the pertinent information mentioned in paragraph 2 which is based on nine-week-old broilers over a one-year period from September, 1960, through August, 1961.

Conclusions

After reviewing these tables it is evident that the following conclusions should be drawn:

(1) There were no differences in growth, feed efficiency, percentage mortality, culls and condemned birds on any of the five new litter materials.

(2) Birds on corn cob litter had a greater incidence of breast blisters than birds on the other litter materials.

(3) While birds grown on old litter had slightly higher average weight and percentage grade A birds, they also had slightly higher percentages of mortality, culls and condemnations than similar birds grown on new litter.

(4) The increased mortality of birds raised on old litter was due largely to non-specific causes and not a specific disease such as leukosis, CRD or synovitis.

To summarize briefly, it should be mentioned that the choice of litter material should not be based on bird performance alone but on quality and cost as well. The choice of using litter for more than one flock is one that deserves considerable thought. How well it fits into your sanitation, disease and parasite control program is highly important as well as your desire for maximum livability of birds in the most pleasant environment. The advantages of used litter being warmer, drier and certainly less expensive are offset partially by the disadvantage of poorer livability and more birds left as culls and condemned on the processing line.

TABLE 6. Litter Costs of Five New Litter Materials

Material	Cost per lb. of broiler (c)*	Cost per 1,000 birds started ($)
Sawdust	.0029	$10.00
Shavings	.0036	12.50
Wood chips	.0029	10.00
Corn cobs	.0026	9.00
Peat moss**	.0198	68.60

*Based on the actual performance of 2,000 birds for each material in this study.

**Priced at $1.75 per 100 lb.

Mill Plate Firm Sold

ATLANTA—Sale of the Sheppard Plate and Machine Works here, 41-year-old manufacturer of attrition mill plates, to John W. Bolton & Sons, Inc., and The Emerson Manufacturing Co., Division, Lawrence, Mass., has been announced.

Operation of the company will continue at the same location, according to the change of ownership announcement. E. B. Sheppard, chief officer of the acquired firm, is to continue in an executive capacity with the new company, to be known as Bolton-Emerson Southern, Inc.

Mills will continue to be served through sales distributors, Bolton-Emerson Southern said.

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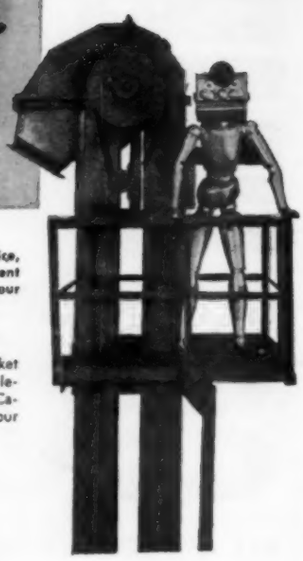

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BEET PULP SHIPMENT—The "world's largest" shipment of dried sugar beet pulp—100 boxcars containing 4 million pounds—arrived recently in the Twin Cities from the Red River Valley of the North. Dried sugar beet pulp is currently being used by manufacturers of dog food, in addition to being a standby in the feeding of dairy cattle. This shipment, valued at $130,000, was shipped to Chicago and Kewaunee, Wis. Among those on hand for the arrival in Minneapolis were Marvin R. Syverson, left, deputy commissioner, Minnesota Department of Agriculture; Miss Dried Sugar Beet Pulp, being fed by Princess Kay of the Milky Way, Diane Kramer, Worthington, Minn.; John M. Budd, president of Great Northern Railway, second from right, and Burton M. Joseph, president, I. S. Joseph Co., Inc., Minneapolis, right, feed merchandising firm that is distributing the shipment.

Creep Feeding Shown Valuable by Tests

LEXINGTON, KY.—Creep feeding of lambs proved its value in drylot and pasture phases of a test conducted by the University of Kentucky agricultural experiment station last season.

Purposes of the test were to check the value of creep feeding alone, to check a simple creep ration against a complex one, and to study value of early-weaning lambs.

Dr. P. G. Woolfolk, researcher, said three rations were tried, and that a fourth group (early-weaned lambs) got the same ration as another test group.

Several results were noted. One was that creep feeding "definitely increased" rate of gain of the lambs during the drylot phase and the pasture phase. Another was that the lambs on the complex creep feed ate more and got higher daily gains; these increased gains were earlier in the feeding period.

The early-weaned lambs showed the fastest gains of any of the test groups. However, feed cost was highest for this early-weaned group. (These lambs were put in drylot immediately after weaning.)

The rations used were: A control of no creep at all; a simple creep of 87% cracked corn, 6% soybean meal and 2% Aureomycin Crumbles, and a complex creep of cracked corn, sugar, soybean meal, alfalfa meal, Aureomycin, bonemeal and salt.

Dr. Woolfolk said the nutrition test would be continued this season, as well as work on shelled and pelleted corn, and creep-feeding with pasturage.

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Report Business of Canadian Co-ops

OTTAWA, CANADA — Canadian cooperatives did nearly a billion and a half dollars worth of business in 1960, according to Vernon Heighton, Canada Department of Agriculture economist.

According to Mr. Heighton, marketing, purchasing, service and fishermen's co-ops did $1,407 million worth of business in 1960, a 3% yearly increase. The 1,936 marketing and purchasing co-ops reporting out of a total 2,093, accounted for $1,364 million of this business.

Co-ops, according to Mr. Heighton, marketed one third of all agricultural products entering commercial trade, the same amount as the previous year. Value of farm products marketed cooperatively was $972 million, up $9 million. Sales of merchandise and farm supplies increased by $30 million to reach $363 million.

Feed, fertilizer and spray material ranked first in sales of merchandise and supplies handled by cooperatives. They amounted to $116 million. Food products followed with $101 million, and petroleum and auto accessories ranked next with $63 million.

The percentages of Canada's agricultural products sold through local cooperatives were: Dairy products, 27.8; livestock, 31.5; poultry and eggs, 16.3; wool, 72.4; grains, 55.5; fruit and vegetables, 22.1; maple products, 49.2; tobacco, 2, and honey, 54.1.

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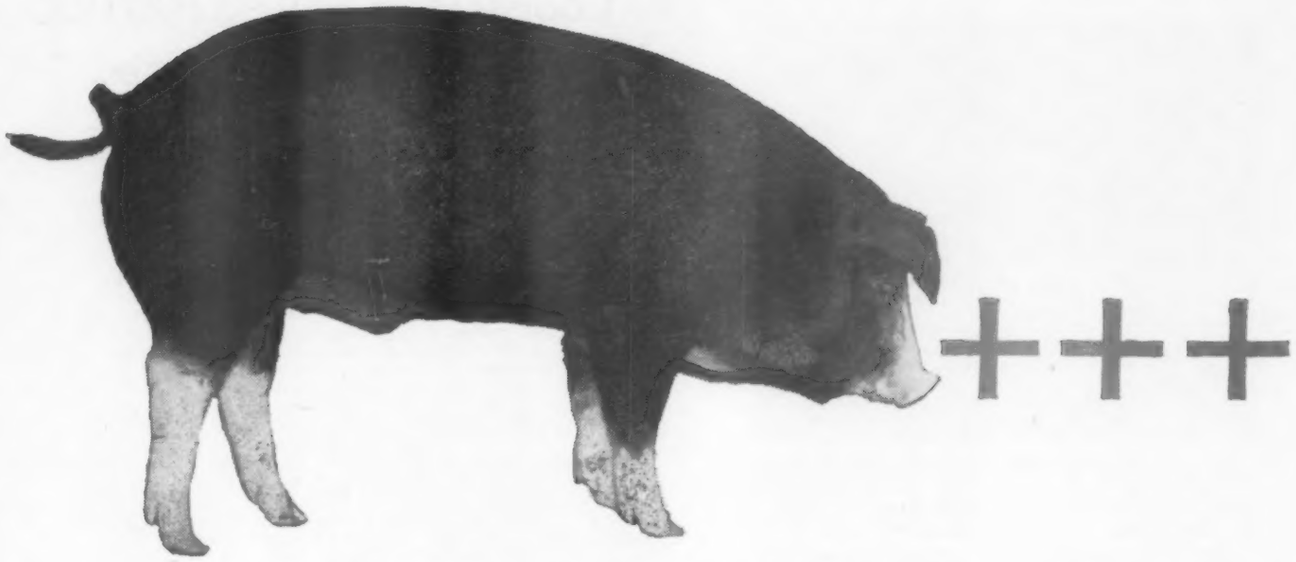

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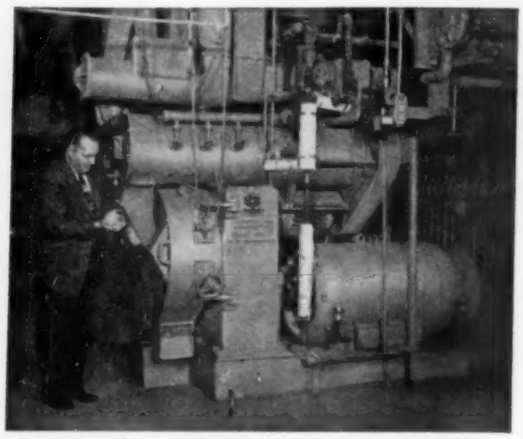

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Cooperative Sells $700,000 Worth of Turkey Feed

By Al P. Nelson
Feedstuffs Special Writer

More than $1 million worth of poultry and livestock feeds are sold annually by the Farmers Cooperative Co., Ellsworth, Iowa, $700,000 of which is accounted for by the sale of turkey feeds, says Paul Hudgins, manager.

Furthermore, since a carefully worked out credit program was begun by the company three years ago, losses from turkey feed accounts have been practically nil, cooperative officials noted when interviewed earlier this year.

Ellsworth is one of the turkey capitals of the nation, say local turkey production boosters. A hatchery in Ellsworth hatches 900,000 poults annually, and all are placed on farms within 20 miles of Ellsworth. Of that production, the hatchery contracts for 100,000 turkey production and raises another 80,000 turkeys annually on the hatchery farm.

All this makes for a tremendous market for turkey feed. Added to this there is a turkey cooperative processing plant in Ellsworth which has 110 grower members and which last year processed 17 million lb. of turkey, for a total volume of $5,500,000.

Credit Program

Not only has Farmers Cooperative Co. a modern mill and grain storage capacity, out of which turkey grower needs can be met quickly and efficiently, but it has a feeding and credit program which is said to meet with the approval of many customers.

In the first place, the cooperative will not finance a poor risk, says Mr. Hudgins. Therefore, he spends much time with credit applicants and inquires about their turkey operation, methods, etc.

The applicant is then asked to fill out a financial statement. The cooperative checks with the local court house records to get the applicant's status on mortgages, judgments, etc. Mr. Hudgins then takes the application to the cooperative's finance committee along with a figure giving the amount of feed desired and the amount of credit asked for.

This application is screened very carefully. If the application is approved, Mr. Hudgins can give the applicant the amount of feed he requires in his turkey growout program.

Depending on the financial status of the grower, the cooperative may finance part or all of the combination of formula feed, grain and poults.

The cooperative takes a mortgage on the applicant's turkeys and a master note on the total amount he is allowed for feeding his turkeys. With each batch of feed delivered to the applicant, the cooperative gets a delivery note for that amount. Interest on the account is 6%, and it begins with the date of the first delivery of feed. The cooperative gets its operating capital at a large bank at 5%.

"These turkey feeding financings run about 6-7 months," says Mr. Hudgins. "It takes 24-26 weeks to grow out a tom turkey and about 20-21 weeks for a hen."

About 80% of the turkey feeds the firm sells are financed. Most of the raisers have about three flocks a year. This is the third year that the cooperative has been working on this credit plan.

When the turkey grower—cash or credit—comes to the cooperative for feed, a special card is made out for him, with the hatching date of his flock and the number being fed.

"We know that the first three weeks the turkeys are on starter," says Mr. Hudgins. "Then our feeding schedule for the rest of the weeks is on the following basis:

"Sixth week, 400 lb. crimped corn with 1,600 lb. starter; 7th, 500 lb. corn, 1,500 lb. starter; 8th, 600 lb. corn, 1,400 starter.

"At eight weeks the turkeys go on range feed and the feed is changed every four weeks. The schedule is: Eight to 12 weeks, half crimped corn and half concentrate; 12-16, 1,200 lb. crimped corn and 800 lb. concentrate; 16-20, 1,500 lb. crimped corn, 500 lb. concentrate; over 20 weeks, 1,600 lb. crimped corn and 400 lb. concentrate.

Keep Records

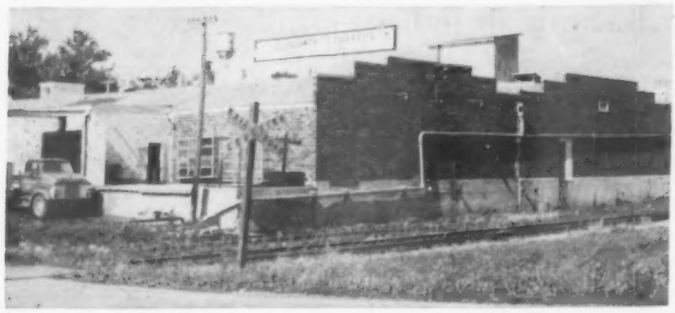
"Farmers don't like to keep records," says Mr. Hudgins, "so we do it. Our records show exactly how much feed each turkey grower received from us, the proportions, and how old his turkeys were at time of delivery. When a farmer phones for turkey feed we can look at the record and know exactly what to send him if he doesn't tell us. Many farmers rely on us to change the feed ratio when needed."

Many of the turkey growers are general farmers. Flocks of turkeys range from 3,000 to 40,000. Some growers raise quite a bit of grain for their turkey feed, but some need to purchase corn from the cooperative several months of the year.

Including government storage and for its own use, the cooperative has 1,100,000 bu. of grain in 19 silos and flat storage. Some months the cooperative sells 100,000 bu. of corn to turkey growers. Some farmers, says Mr. Hudgins, may have enough corn for their hog and cattle operations, but not enough for their turkey operation.

The cooperative operates a limited grain bank plan. The firm also has a grain drier with a capacity of 1,500

ELLSWORTH COOPERATIVE—This is a photo of the Ellsworth, Iowa, Farmers Cooperative Co. offices, farm store, elevator and mill. The firm sells over $1 million worth of feeds annually, $700,000 of which is turkey feeds.



TURKEY PROCESSING PLANT—Pictured is the Central Cooperative Turkey Producers processing plant at Ellsworth. The plant was built as a processing and marketing outlet for this turkey producing area of Iowa, and has been expanded four times since.

bu. per hour. The charges for grain drying are 5¢ for the first five points of moisture and ½¢ per point over 5%.

"A great deal of the corn harvested early around here is by picker sheller," says Mr. Hudgins, "and has a heavy moisture content. This makes drying imperative for good handling and proper feed mixing."

Make Turkey Feeds

The cooperative makes its own line of turkey feeds, using a premix and building up. The brand name is Ellsworth Feeds. In addition, the firm also handles Kent and Co-op concentrates and complete feeds.

In making its line of hog feeds, states Mr. Hudgins, the mill follows the hog feeding recommendations of Iowa State University in at least 85% of its hog feed volume. If the farmer phones in the age and weights of his pigs, the mill can easily make up the proper feed and deliver it into the farmer's feeders.

The mill was built three years ago at a cost of $250,000. Ten men are employed to handle the feed operations. Total employees in the cooperative number 25.

Operations are controlled in the mill by push buttons. The 50 h.p. California pellet mill, for example, has eight controls. In June, 1961, this pellet mill produced 1,200 tons of pellets on a 17 hour-a-day schedule, reports Mr. Hudgins.

There are two hammermills. One is a 100 h.p. Prater, with 50 h.p. on the blower. The other is a J. B. 75 h.p. with 35 h.p. on the blower. A five-ton Utica and a three-ton Prater handle the mixing duties. A large five-ton Fairbanks hopper scale is used. Mr. Hudgins says that this large hopper helps greatly in servicing customers who buy in large quantities. He states that through the use of air valves, the firm can get five tons of materials into the mixers in three minutes.

Materials are brought into the plant by both truck and rail facilities. Delivery equipment includes two six-ton Dodgen bulk trucks, a one-ton combination bag-bulk Dodgen and a five-ton Highway bulk truck. On busy days the firm often delivers 45-50 bulk loads of feed to customers in its trade area. The average number of bulk loads is about 30 every day of the year.

"We work in every way we can with turkey and other feeders," states Mr. Hudgins. "We help them to work out formulas, we keep records for them and we help them in making application to get credit for sound feeding programs. The turkey growing industry especially has been a source of additional income for many farmers in this region. And, undoubtedly, the trend will continue, because of the combination of hatchery, processing plant and experienced growers."

Mr. Hudgins called attention to the Central Cooperative Turkey Producers' processing plant at Ellsworth. The plant was built in 1945 because of a need for a processing and marketing outlet for the turkeys of local producers. Since the original plant was built, the membership has increased fivefold to 110. These members this year are producing in excess of a million head of turkeys, all within a 20-mile radius of Ellsworth. In tonnage this represents approximately 20 million pounds of live turkeys, and the plant's sales volume will be about $6 million for a seven-month processing season, which begins in June and continues into January. Marketing of membership turkeys is handled on a monthly pool basis.

The plant building and facilities were increased in 1952, 1957, 1959 and, again, in 1961 to keep pace with the annual increase in local production of turkeys. There are now approximately 250 employees, and the weekly payroll averages about $15,000.

Daily processing capacity is 15,000 head of hen turkeys or 10,000 head of tom turkeys, with a daily freezing capacity of a quarter million pounds of turkey meat at a temperature ranging down to 40° below zero.

Howard Richey, manager, points out the plant, in 1957, pioneered the "immersion freeze" process in the Midwest. In this method, turkeys are immersed in a sodium chloride solution as part of the freezing process to give the turkey a "bloom" or "sales appeal" appearance. Mr. Richey points out other "firsts" in the processing and marketing techniques of turkeys, including fabricating of boneless turkey rolls and turkey steaks, and packaging of turkey parts.

The plant currently processes, packages, freezes and ships an average of five rail cars or trailer loads of frozen, ready-to-cook turkeys daily, representing an average daily sales volume of approximately $50,000, to most metropolitan areas in the eastern part of the U.S., plus a small percentage to foreign customers.

Sales are handled directly by plant personnel. In the spring, before the processing season gets under way, plant management concentrates on developing additional sales outlets.

The turkeys are packed under several brands, including private labels for major chains and distributors. The two Grade A brands featured most by the plant of their own labels are "Ellsworth Butter Rich," and "Brest O' Gold."

CONTROL PANEL — Paul Hudgins, manager of Farmers Cooperative Co., Ellsworth, Iowa, is seen in this photo at the feed mill control panel. Mill operations are controlled by push buttons.

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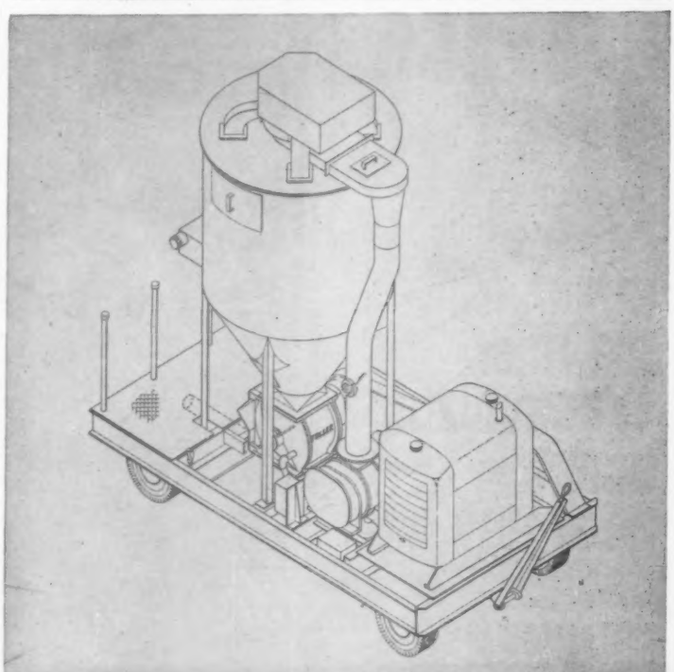

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Possible Hog Feeding Records in Indiana

By Frank M. Simison
Special Writer

On the night of Aug. 12 farm viewers watching the program of WFBM-TV, Indianapolis, were given a sizable surprise. In the midst of an interesting dramatic skit the picture suddenly faded, to be replaced by the familiar features of Harry Martin, well-known station farm expert.

"I am interrupting the program to announce," Mr. Martin told the listening audience, "that two new world's records in feeding hogs have been set at the Landrace National Test Station at Lebanon, Ind."

He went on to say that one young boar, the property of Eugene G. Benedict, Culver, Ind., had attained a weight of 200 lb. when only 125 days old, showing an average daily gain of 2.53 lb., with a feed conversion factor—the amount of feed required for a pound of gain—of 2.63. A second boar had reached 200 lb. in 120 days.

When the matter of these records being world records was discussed with Franklin Wakefield, manager of the Landrace Test Station and field secretary of the American Landrace Assn., Inc., he demurred at claiming they were absolute world records, as did Merritt Murphy, association secretary.

"The records are the best that have been reported by test stations," Mr. Murphy explained, shying away from the broader claim. But any man familiar with usual gains for feeding hogs will tell you, world record or not, an average daily gain of better than 2 lb. is plenty good.

Termed responsible for the records of the pigs are three factors—Mr. Wakefield's management; good feeds, purchased at a regular (Purina) store from Ernest Kennedy of Noblesville, Ind. (no special formulas or mixes were used), and the "exceptional characteristics" of the Landrace breed. Production records and performance records have been set by Landrace hogs in test stations all over the U.S., according to Mr. Murphy.

For example, the best five litter production records in swine history were made by registered Landrace. The two best efficiency records ever reported were also made by Landrace. The record in feed efficiency is 2.11, made last year at the Southwestern Illinois Test Station at Mascoutah, Ill.

The Landrace Assn. is the only swine breeding organization in the U.S. operating a test station. "This was our seventh consecutive year, and we expect to continue indefinitely," Mr. Murphy said. "We are also giving some thought to setting up a test program for gilts similar to the one now conducted for boars. The right kind of sows in a herd is just as important as the right kind of boar."

The farm on which the station is located, three miles east of Lebanon on Indiana Route 32, belongs to Mr. Wakefield, but is leased to the association, the latter owning all equipment and facilities.

Ending each testing season is a sale of the performance-tested boars that have been fed through the summer to a weight of 200 lb. This year, there were 23 boars in the station sale, with 13, which were meat certified "excellent," averaging a sale price of $313. Highest price was paid for the record-setting boar, which brought $700.

TEST STATION—Weighing a boar at the Lebanon, Ind., Landrace National Test Station is Franklin Wakefield, manager. Two possible world records in feeding hogs were set at the station recently.

Feed Companies Back Youthpower Program

CHICAGO — Participating in the third Youthpower Program of the National Food Conference this year are a number of feed manufacturing and related firms.

These feed manufacturing firms are part of a group of 60 feed or food manufacturing firms and associations participating in a program emphasizing raising nutritional standards of teenagers, according to the National Food Conference. NFC says that the purpose of the Youthpower Program is to increase public understanding, appreciation and response for the total food industry and its products, and thereby enlarge the market for good products and increase the share of the consumer's dollar spent for food.

Feed industry and related groups participating in the program include: Allied Mills, Inc.; American Feed Manufacturers Assn., Inc.; Carnation Co.; Chicago Board of Trade; Chicago Mercantile Exchange; Corn Products Co.; General Mills, Inc.; Hales & Hunter Co.; Institute of American Poultry Industries; The Pillsbury Co.; Poultry & Egg National Board; Quaker Oats Co.; Ralston Purina Co., and Rath Packing Co.

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Vermont Feed Men Told Farmers Need Information on Potential of New Feeds

BURLINGTON, VT. — That farmers need additional information on what they can expect from new feed products and that there should be closer liaison between feed dealers and extension workers were among the points of talks given at the 19th annual meeting of the Vermont Feed Dealers & Manufacturers Assn.

The one-day session, held Sept. 28, at the University of Vermont was sponsored by the association in cooperation with the university's poultry science department and the department of animal and dairy science.

Making the statements on the need for more information on new feeds for the farmer and liaison between feed dealers and extension personnel was R. P. Davison, director, extension administration, University of Vermont.

Mr. Davison said more basic research and more trained men are needed in the field of animal nutrition, and, in view of modern competition, there should be continuous and rapid flow of information if producers are to avoid costly mistakes.

Dean Paul R. Miller of the University of Vermont College of Agriculture commended the feed dealers and researchers for their teamwork in bringing new nutrition information to the marketplace, enabling farmers to use the best feeds now available.

An analysis of the present and possible future situation in farm policy as it affects the feed industry was presented by Dr. W. Lyle Fitzgerald, manager of economic research for The Quaker Oats Co., Chicago (Feedstuffs, Sept. 30, page 1).

Information from some of the other talks presented at the meeting follows:

HOW TO SURVIVE IN THE DAIRY BUSINESS WITH $3.85 MILK — Northern New England dairymen will need to make "some real adjustments in their costs of production" if they are to meet the challenge of this type of milk market, said Dr. B. R. Poulton, head, department of animal science, University of Maine.

He said the area's dairymen need to pay greater attention to the following:

(1) Production per cow — with much greater emphasis given to cow quality.

(2) Percent of receipts spent for grain—which means a much better job with forage and a more individualized feeding program.

(3) A goal of selling 250,000 lb. of milk per man per year.

Dr. Poulton said that the average northern New England dairyman could not survive with $3.85 milk prices. And, he said, fortunately, he does not have to survive such a price now. But, the Maine animal science department head said prices in this general range may well become fact in the near future.

He noted that Wisconsin dairymen can produce for such prices. He pointed out that northern New England dairymen do not enjoy the grain price advantage and do not have the forage efficiency of the average Wisconsin dairyman.

But, Dr. Poulton continued, there is hope for the New England dairyman to meet the challenge.

He said that today's economic conditions dictate that cows must be capable of producing for sale a minimum of 10,000 lb. of 4% milk annually.

Improvement in producing ability must come from increasing genetic merit of cattle through improved selection and breeding and from improved feeding programs, he said.

Dr. Poulton said, "Research has uncovered little variation between cows with respect to their ability to digest and absorb nutrients and in the efficiency with which they produce milk from absorbed nutrients. Here, then, is a characteristic of dairy cattle—appetite—that up to now has been relatively ignored in both research and general herd management programs; yet it appears to be all important in reaching our goal of high production in dairy cattle."

Speaking of the percent of receipts spent for grain, Dr. Poulton continued, "The future of our northeastern

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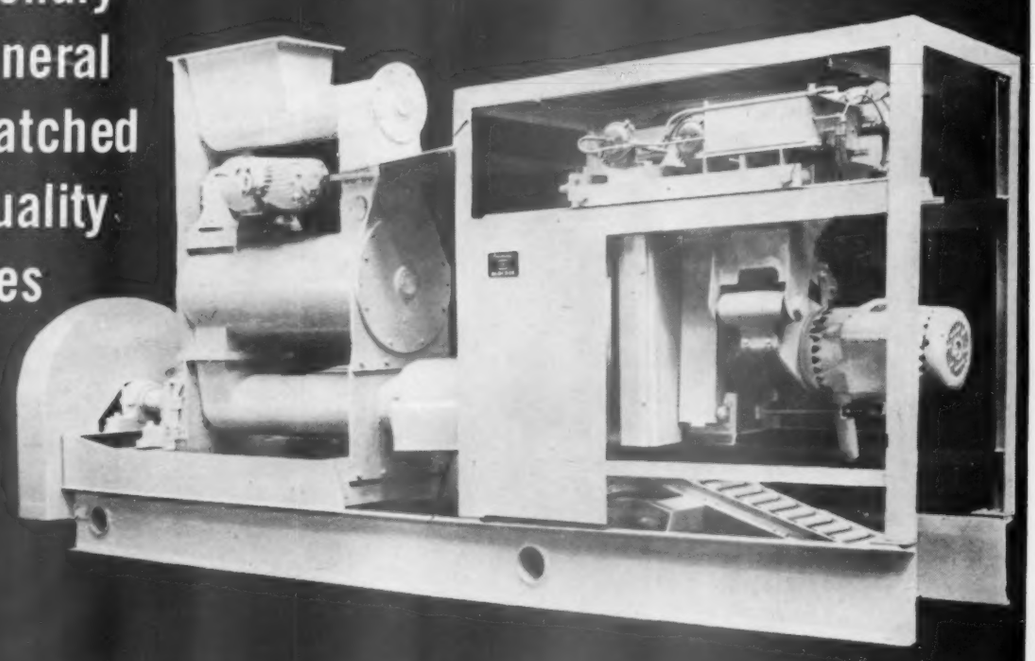

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Dr. Poulton warned, "Because of the large number of variables involved, intelligent grain feeding must always be an individualized program."

Regarding the value of labor used per cow, Dr. Poulton said, "Today's economic conditions dictate that milk sales of 200,000 lb. per man should be the minimum of all dairymen, and this figure should be adjusted to 250,000 lb. during the next five years."

THE NEW LOOK IN DAIRY CATTLE HOUSING—R. O. Martin, agricultural engineer for H. P. Hood & Sons, told those present that a profitable dairy cattle housing system must satisfy certain criteria: (1) Flexibility for future expansion; (2) maximum cow comfort, conducive to good herd health and longevity, and (3) minimum labor and capital input per unit of production.

He continued, "Based on the above criteria, the new look in dairy cattle housing for the 1960's will be modern milking centers coupled with low cost expandable housing facilities.

"The milking center will be a conventionally constructed building, well insulated and with a central heating system. Facilities will include a milking parlor, milk room, pens and possibly an office and lavatory.

"The low cost housing facilities designed for future expansion, will be one of two types: (1) A loose housing system or (2) a stall barn." According to Mr. Martin this stall barn will be one story and will show little resemblance to the typical stall barn that is now common. The stall barn will be a place to tie the cow and feed her roughage, he commented.

Mr. Martin estimated that the cost of the described system would be about $525 to $600 per cow for a 75-cow herd if constructed under contract. Included are a complete milking center with milking parlor, bulk tank and silage storage facilities.

Mr. Martin urged thinking and designing in terms of housing systems, not in terms of barns. He said a housing system should be considered on the basis of annual operating costs, not just initial investment. And, he advised against complacency with present levels of efficiency.

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"I shoot for $30,000 profit a year from 500 head"

"And Stilbosol accounts for $3,000 of that profit," reported veteran cattle feeder Harry Marks, Delavan, Minnesota

"We try to run 500 head of cattle through our yards every year and I feed for a gross margin of $60 a head. Of that profit, I figure Stilbosol accounts for 10%, and that's conservative.

"We're feeding heifers now. You can buy 'em cheaper and they sell for only a little less than steers. We feed our heifers to around 950 pounds. With Stilbosol, our heifers have gained an average of two pounds per day . . . and that's from western weight to market weight. That includes about 5% shrinkage at both ends. And it usually takes about two weeks before they recover and start to eat right.

"One year we fed some steer calves on silage without stilbestrol in our ration and they gained an average of 1.45 pounds per day. The next year, we fed 'haylage' and stilbestrol to our steer calves and they gained an average of 1.95 pounds per day. We weigh cattle every three months on our place so we know the gains we're getting.

"My pride and joy is our new feedlot. We call it 'Cattle Castle.' My 12-year-old boy, John, is going to be responsible for the feeding. He'll feed 200 head of cattle three times a day for a total of 34 minutes. All he has to do is flip five switches. I put a window in the control house because half the fun in feeding cattle is to see 'em eat," Harry concluded.

After seven years, Stilbosol continues to give feeders an extra 15% gain on 10% less feed.

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(diethylstilbestrol premix)

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DESCRIPTIONS OF NEW AND IMPROVED PRODUCTS AND SERVICES PROVIDED BY MANUFACTURERS AND SUPPLIERS ARE PRESENTED IN BRIEF FORM. FOR ADDITIONAL INFORMATION, PLEASE USE THE ACCOMPANYING COUPON.

No. 7736—Continuous Flow Grain Dryer

Ace Supply & Equipment Co., Inc., Salina, Kansas, is offering its Model CF-75 continuous flow grain dryer designed to dry 1,000 bu. per hour. The unit is, in design, similar to the company's 800 bu. per hour machine, which also features multi-stage drying.

Features of the machine are listed as "pushbutton operation, foolproof sequence starting, safety shutoff, alarm and simplicity of operation."

The design includes the manufacturer's climatic control neutral chamber, which, it is said, can be made a part of either the heating chamber or the cooling chamber in a matter of seconds for greater efficiency in varying climatic conditions.

For additional information, check No. 7736 on the coupon and mail.

No. 7740—Polyethylene Valve Insert

A reinforced polyethylene valve insert for stepped-end pasted valve bags has been developed by Union Bag-Camp Paper Corp. The insert is bolstered with gummed tape which is said to result in a tighter closure and added strength at the point where the valve hangs on a bag filling spout.

The insert is constructed of 1½ mil seamless polyethylene tubing with a strip of 60 lb. gummed tape reinforcing the top side of the tube. It is set into the valve and attached by adhesive.

By supporting the poly tube along the top, the insert is designed to lie flat against the upper edge of the bag, tending to prevent wrinkling or hanging as the bag is withdrawn from the spout, thereby minimizing sifting.

For additional information, check No. 7740 on the coupon and mail.

No. 7739—Booklet on Dehydrated Alfalfa

A 24-page booklet, "How to Feed Modern Dehydrated Alfalfa," has been published by the American Dehydrators Assn. It contains nutrient feeding information for producers of beef cattle, dairy cows, swine and sheep.

Included are specific suggestions on when and how to include dehydrated alfalfa in the rations to obtain maximum benefits economically. The booklet also provides a capsule survey of recent experiment station reports and other findings pertaining to the beneficial use of dehy.

For a copy of the booklet, check No. 7739 on the coupon and mail.

No. 7735—Formulation Service

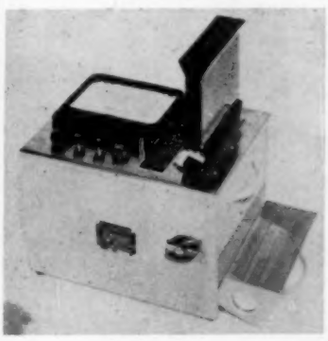
Peter Hand Foundation, manufacturer of vitamin products for livestock and poultry feeds, now offers "Least-Cost Formulation Service" to feed manufacturers. Formulas submitted will be processed through an electronic analog computer at a nominal cost per formula, according to the company.

For additional information, check No. 7735 on the coupon and mail.

No. 7738—Portable Moisture Tester

A portable model has been added to the Steinlite line of moisture testers, it was announced by Seedburo Equipment Co., exclusive distributor.

The new portable unit, Model RB, is completely battery powered and



may be used anywhere. There are no tubes.

Powered by a standard 22½ volt battery, the distributor says the unit will make 5,000 moisture tests before battery replacement is required. The unit is designed for one-minute tests on grains, coffee, rice, peanuts and other similar commodities.

For additional information check No. 7738 on coupon and mail.

No. 7737—Literature On Die Cover

Sprout, Waldron & Co., Inc., has available literature describing the advantages and procedures for installing its new two-piece die cover for Ace pellet mills.

For a copy of this literature, check No. 7737 on the coupon and mail.

No. 7741—Grain Storage Building

A "self-cleaning" grain storage building featuring wrap-around corners and horizontal wall panels is being produced by Butler Manufacturing Co. Engineers rounded the corners to prevent grain from being

trapped or leaking out. Designed for low-cost storage, the buildings are available in capacities ranging from 50,000 to millions of bushels. Standard white roofs and blue gables have factory-applied color finish.

For additional information check No. 7741 on coupon and mail.

Also Available

The following new products have been described in previous issues of Feedstuffs and information about them may still be obtained by jottmg the appropriate number of the coupon and forwarding it to Feedstuffs.

No. 7682—Poultry performance calculator, Cobb's Pedigreed Chicks, Inc.

No. 7683—Rat extermination, Hess & Clark.

No. 7684—Feed flavoring handbook, Flavor Corp. of America.

No. 7685—Tramp Iron Drum Separator, Eriez Manufacturing Co.

No. 7686—Bulk truck, Winger Manufacturing Co.

No. 7687—Calf raising handbook, Wirthmore Feeds, Inc.

No. 7688—Base for calf milk replacers, Borden Special Products Co.

No. 7689—Antibiotic for swine, Elanco Products Co., Div. of Eli Lilly & Co.

No. 7690—Horizontal batch feed mixer, Sprout, Waldron & Co., Inc.

No. 7691—Pfizer activity review booklet, Chas. Pfizer & Co., Inc.

No. 7692—Fluid pump, Clayton Manufacturing Co.

No. 7693—Lightweight bin vibrator, Martin Engineering Co.

No. 7694—Equipment leasing plan, Nationwide Leasing Co.

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- ☐ No. 7735—Formulation Service
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- ☐ No. 7737—Die Cover
- ☐ No. 7738—Moisture Tester
- ☐ No. 7739—Booklet on Dehy Alfalfa
- ☐ No. 7740—Valve Insert
- ☐ No. 7741—Grain Storage Building

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No. 7695—Promotion for mastitis medication, The American Cyanamid Co.

No. 7696—Dried beet pulp, The I. S. Joseph Co., Inc.

No. 7697 — Equipment brochure, Edw. Renneburg & Sons Co.

No. 7698 — Pneumatic conveying system, Sprout, Waldron & Co., Inc.

No. 7699—Fortification of feedlot rations, Vit-A-Way, Inc.

No. 7700 — Suspended separation magnets, Indiana General Corp., Stearns Division.

No. 7701 — Conveying, tubing elbows, Systems Engineering & Manufacturing Co.

No. 7702—Temperature measuring system, Radson Engineering Corp.

No. 7703—LP-Gas stock tank heater, Brower Manufacturing Co.

No. 7704 — Pressurized bulk feed truck, Sprout, Waldron & Co., Inc.

No. 7705—Belt selection guide, The Imperial Belting Co.

No. 7706—Fiberglas storage tanks, Tryco Manufacturing Co., Inc.

No. 7707—Continuous weighing system, Industrial Powertronix, Inc.

No. 7708—Automatic control panel, Thayer Scale Corp.

No. 7709—Sow milk tablets, Agri-Tech, Inc.

No. 7710—Bulk scale, Burrows Equipment Co.

No. 7711—Portable loader, Ft. Worth Steel & Machinery Co.

No. 7712—Livestock tablets, Myzon Laboratories.

No. 7713—Poultry house heater, Electronics, Inc.

No. 7714—Antibiotic treatment for livestock, Abbott Laboratories.

No. 7715—Grain drier literature, Aeroglide Corp.

No. 7716—Steam generator, Clayton Manufacturing Co.

No. 7717—Steel building booklet, The Columbian Steel Tank Co.

No. 7718—Bulk feed bin, Chore-Boy Manufacturing Co.

Grain Moisture Study, Radson Engineering Co., Macon, Ill.—25¢

No. 7719—Self-service rodent killer, Vineland Laboratories.

No. 7720—Portable pneumatic conveyor, The Buhler Corporation.

No. 7721—Mobile feed mill route literature, Seco, Inc.

No. 7722—Service and equipment brochure, General American Transporation Corp.

No. 7723 — Grain drying bulletin, Farm Fans, Inc.

No. 7724 — Grain temperature probe, Douglas Chemical Co.

No. 7725 — Plastic egg collection flat, Automatic Poultry Feeder Co.

No. 7726 — Scale control system, Cardinal Scale Manufacturing Co.

No. 7727 — Pig starter additive, Thompson-Hayward Chemical Co.

No. 7728 — Molasses pellet mill, Sprout, Waldron & Co., Inc.

No. 7729 — Poultry house plans, Keen Manufacturing Corp.

No. 7730 — Hog disease control guide, Vineland Laboratories, Inc.

No. 7731—Baler twine, Shellbuilder Co.

No. 7732 — Polyvalent bronchitis fraction, Delaware Poultry Laboratories, Inc.

No. 7733 — Protein concentrate, Knudsen Creamery Co.

No. 7734—Dehydrated alfalfa booklet, American Dehydrators Assn.

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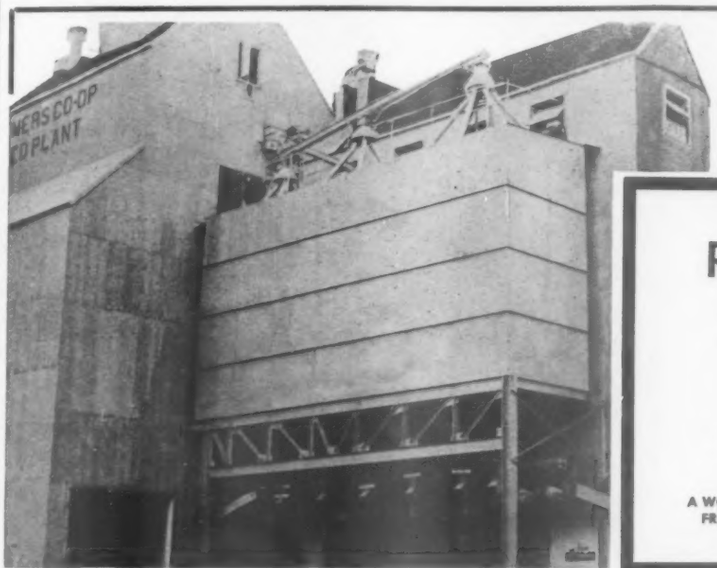

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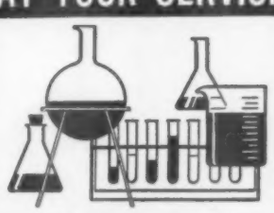

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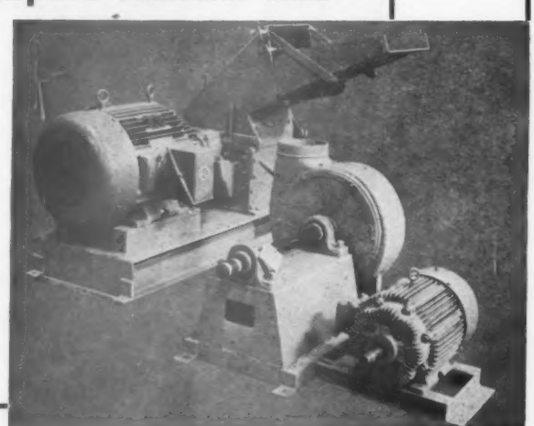

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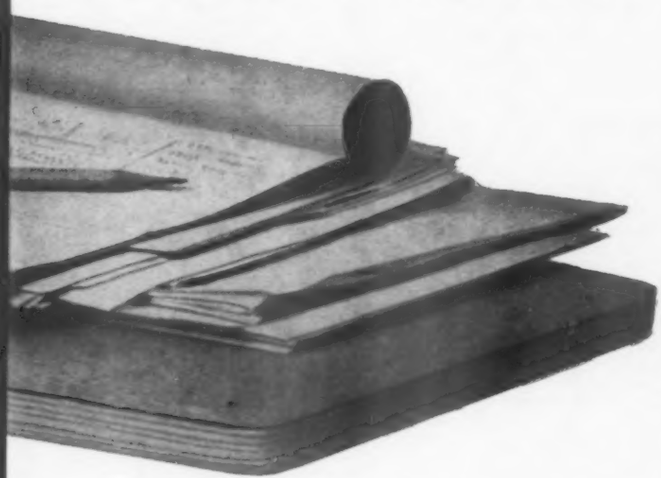

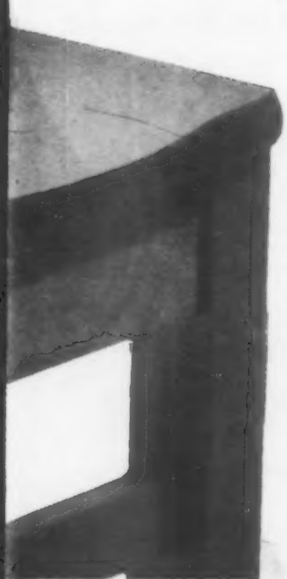

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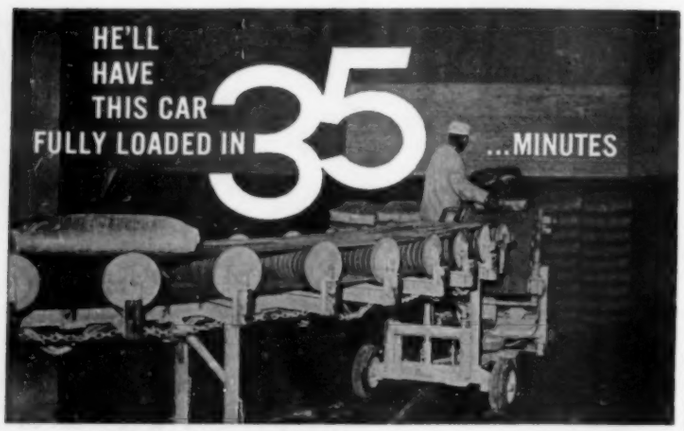

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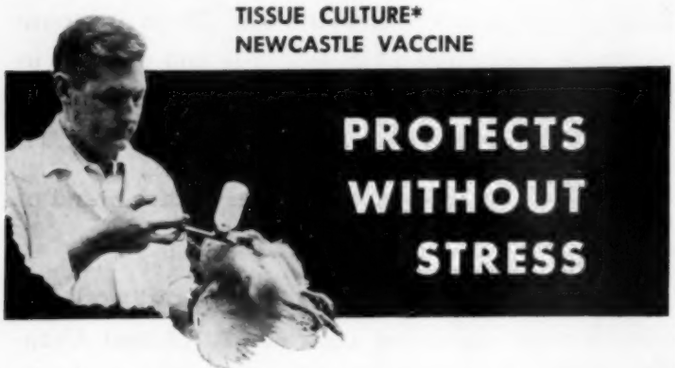

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WALNUT GROVE

(Continued from page 24)

mins and antibiotics. When combined with home-grown grains, the supplements could be fed to four classes of swine—brood sow, baby pig, growing hog, finishing hog. Hence—"4 x 4."

SALES AREA — Walnut Grove's sales area is described as the "heart of the Corn Belt, where the highest concentration of livestock on the North American continent occurs."

The company covers all of the important state of Iowa, plus the livestock areas of Nebraska and Illinois. The firm's distribution also reaches into parts of southern Minnesota, most of Wisconsin and northern Missouri. One of the most recent expansions has been in southeastern South Dakota. The company went into Wisconsin a few years ago; in this connection, it may be noted that emphasis is currently being put on new dairy feeding programs for this and other sections of the company's sales area.

All of the Walnut Grove expansion has been in the prime livestock area which the company serves, and no attempt has been made to reach beyond this.

In the states served is the largest concentration of cattle on feed, of hogs, milk cows, turkeys and other livestock that the world has ever seen. For example, Iowa and Illinois lead all other states in pork production; Iowa, Illinois and Nebraska are first, second and third in beef production; Wisconsin and Minnesota are first and second in milk production.

SALES ORGANIZATION AND SELLING—Walnut Grove is entirely a "direct selling" organization, with no dealers or distributors. The company's view on this was put this way by one spokesman: "The modern trend toward larger and fewer farms enhances our direct sales and service methods. Today's livestock producer prefers to do business with a trained, capable representative of a reputable manufacturer rather than to buy through a local dealer who may be largely unaware of modern nutrition theory and practices. . . . He will do business with those people from whom he can expect to receive superior counseling and help, those people who can provide him with the products and programs that will help him to increase his efficiency and productivity."

Mr. O'Connor said that the company had always been a direct sales organization and that dealer setups never were considered during the period of growth.

He said that the basic concept of the firm is to help farmers produce food, help them to produce more and better meat, milk and eggs, utilizing the grains and roughages on their own farms. This includes help by sales/service men on farm management as well as feeding.

"One major factor in the company's success," said Mr. O'Connor, "is an educational program for producers through sales/service men, so that feed will perform as intended. Literature and help for producers are geared to this end. This includes help on programs for individual producers so that their own livestock, using their own feedstuffs, will show the most profitable performance. One example is guiding farmers on the kind of cattle they should buy so that they can utilize their own roughage and feedstuffs best."

The company's sales force consists of more than 450 trained sales/service representatives, who are in contact with more than 40,000 customers.

Heading the sales department is Eldo H. Meyer, general sales manager, who has been with Walnut Grove since 1950. Mr. Meyer, who was reared on a Nebraska farm, is a 1948 animal husbandry graduate of the University of Nebraska. He managed 50 southwest Iowa farms for the Farmers National Co., Omaha, prior to joining Walnut Grove as a division manager in 1950. He moved to the home office in 1951 as assistant sales manager, and he became sales manager in 1955.

Charles A. Swisher is assistant sales manager and director of sales training. Among others in the home office sales department is Bob Anderson, director of nutrition, who helps in training and is responsible for getting information and instruction on feeds and feeding to personnel in the field. The staff also includes three sales supervisors who report to the sales manager. They are sales specialists who handle special work, such as particular phases of sales supervision and development and creating and developing new areas.

Under the sales manager are eight regional managers, and they in turn have 51 division managers reporting to them. There is an average of six divisions per region. In each division

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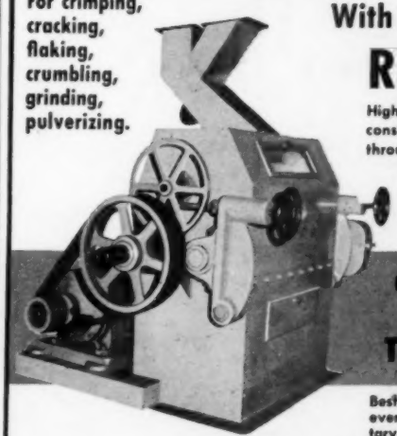

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are 9 to 10 salesmen. A salesman's area will depend on livestock population and producer numbers. In Iowa, a typical sales area is four to five townships.

The whole setup, said Mr. Meyer, "provides a maximum opportunity to serve producers on a personalized basis."

Salesmen are paid on a straight commission basis, with compensation based on tonnage. It has been found that this "pure form" of sales compensation is the best stimulant.

Mr. Swisher said that a key aspect of the company's philosophy is that a salesman must be interested in selling, "but first he must be willing and able to help the livestock producer do his whole farming job better." One example of this, he said, is in money management. "The idea," he said, "is to sell what the farmer needs and then also show him how he can use it and pay for it and benefit from it in the light of his whole operation."

"We train people on how to sell and service feeds and feeding programs, but they also must consider other obligations and farmers' personal objectives. Help is provided on the whole livestock and agricultural program."

Going back to the sales organization, here's how the setup was described. It was pointed out that there are straight lines of responsibility and authority from top sales management to the men in the field.

1. Sales/service representative — the direct representative of the company to the customer in all sales and service.

2. Division manager—the person to whom the sales/service man reports directly. The division manager is the representative of sales management in a specific area. He will typically have about 10 men in specific sales territories within the division. It is his responsibiilty to recruit, hire, train, supervise and motivate the men and direct sales and service in his division.

3. Regional manager—He is the direct sales management representative in a specific area made up of an average of six divisions. The regional manager is directly responsible for the activities of division managers as well as indirectly responsible for sales/service representatives. He reports directly to the general sales manager in the home office.

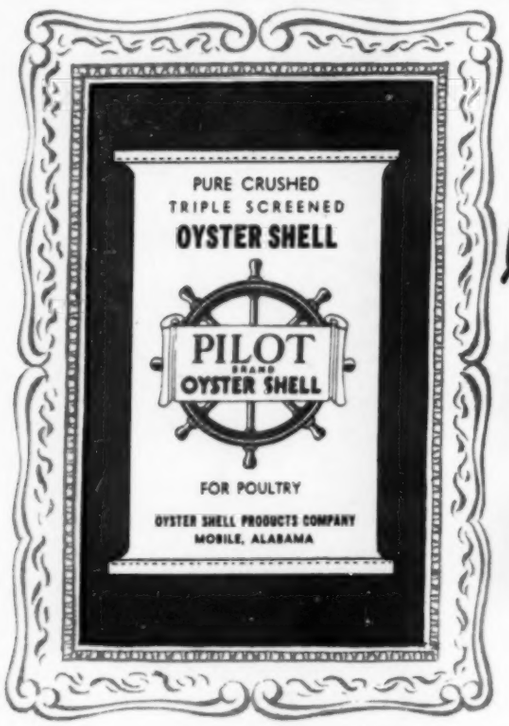
4. Home office—At the top of the sales department's organizational chart are the home office personnel who also report directly to the sales manager, who in turn reports to the president. The home office personnel are the general sales manager; assistant sales manager and director of sales training; director of sales personnel; director of nutrition; director and associate director of veterinary research; three sales supervisors, mentioned above; assistant sales training director; director of sales communication.

A uniform price policy is maintained on the entire line of products, with cash, pick-up and contract discounts.

The company originally priced its mineral feeds on an f.o.b. plant basis. Then in 1950, the company went to a uniform price policy, which continues today. At the time the change was made to uniform pricing and delivery entirely in the firm's own trucks, the policy was described as "revolutionary."

All feed orders funnel through the home office, where orders are processed with an IBM system, and deliveries or pick-ups are handled by the local warehouses.

(Information on development and training of sales personnel, sales promotion and advertising, manufacturing and distribution, research and quality control, credit operations and other aspects of the Walnut Grove business will be presented in a second and concluding article.)



Always in Your Profit Picture

PILOT BRAND OYSTER SHELL

PILOT BRAND Oyster Shell is a profit maker every month in every year. There's never a slack season.

That's because poultrymen everywhere depend on PILOT BRAND to help them get more eggs with stronger shells.

Dealers, coast-to-coast, know that it pays to stock and promote PILOT BRAND, the largest-selling eggshell material in the world. You can always count on PILOT BRAND for quick, easy sales and good, steady profits. And we help you with consistent, hard-selling national advertising in leading farm and poultry publications and on more than 70 radio stations.

PILOT BRAND OYSTER SHELL

FOR POULTRY

Oyster Shell Products Company

Subsidiary of Southern Industries Corporation

Mobile, Alabama

HEADQUARTERS

MAGNAVAM FEED ADDITIVES

Few Equal, None Excel

HOLT PRODUCTS CO.

Box 840, Milwaukee 1, Wisconsin

for complete nutritional service

call or write

Hoffman

Hoffman-Taff Inc.

Manufacturing Chemists

SPRINGFIELD, MO.

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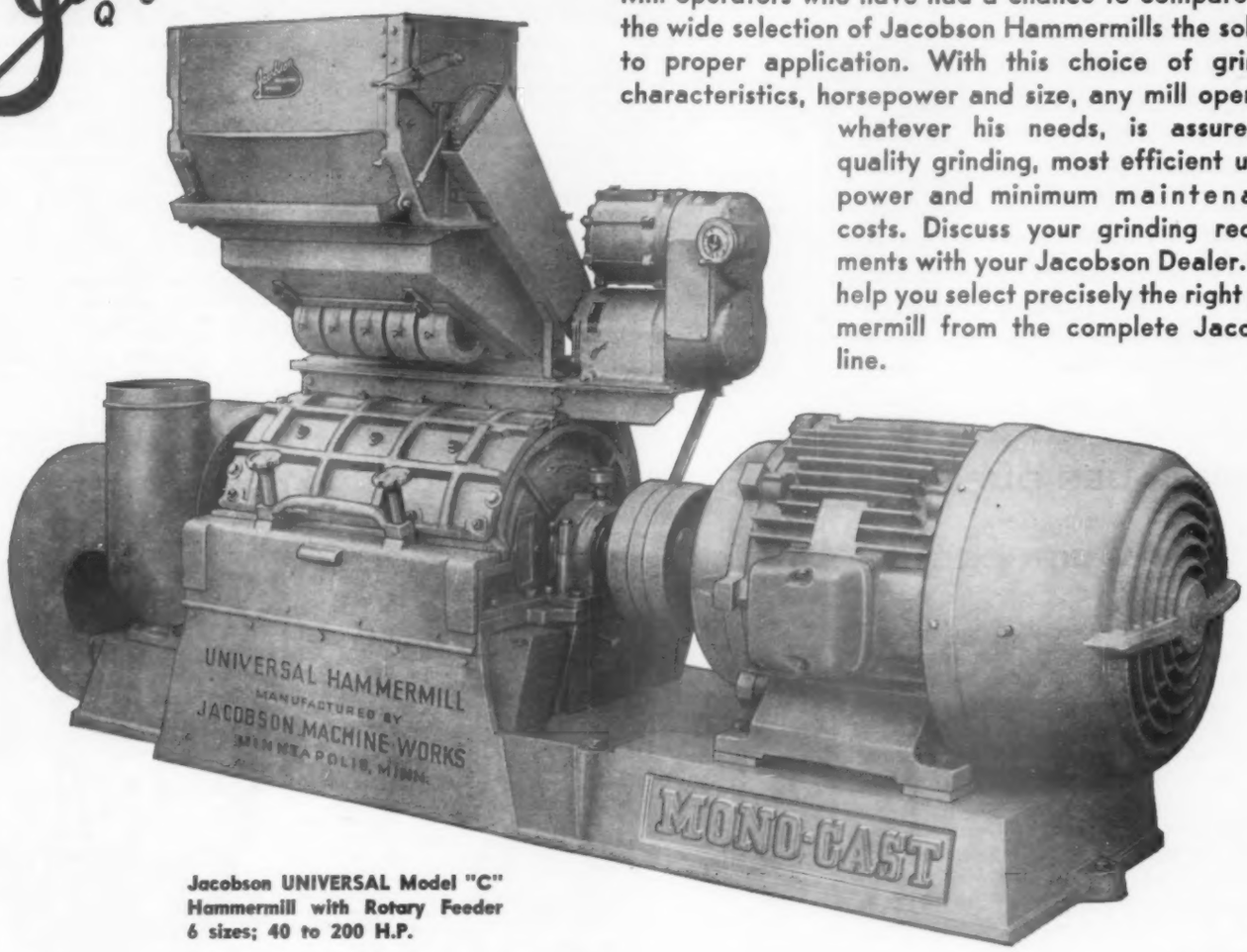
Wide Selection for Proper Application

Mill operators who have had a chance to compare, find the wide selection of Jacobson Hammermills the solution to proper application. With this choice of grinding characteristics, horsepower and size, any mill operator, whatever his needs, is assured of quality grinding, most efficient use of power and minimum maintenance costs. Discuss your grinding requirements with your Jacobson Dealer. He'll help you select precisely the right hammermill from the complete Jacobson line.



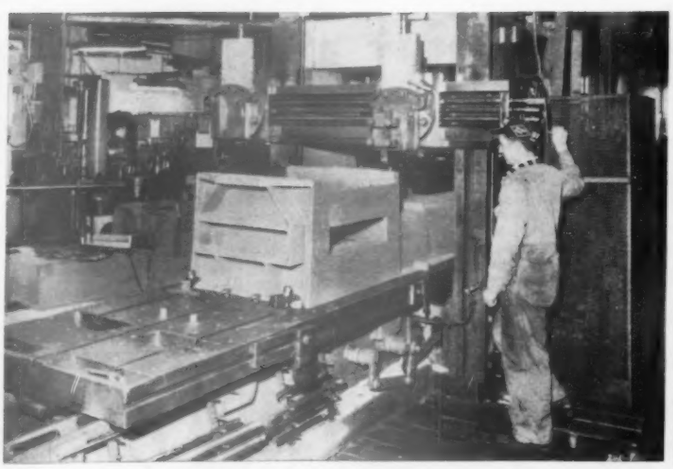
Jacobson UNIVERSAL Model "C" Hammermill with Rotary Feeder 6 sizes; 40 to 200 H.P.

. . . . . Another PLUS for Jacobson Users!

SINGLE-OPERATION PLANING OF ROTOR BEARING AND MOTOR MOUNTING SURFACES

A contributing factor in the long life and dependable operation of Jacobson Hammermills is the perfect alignment of the hammermill and the driving motor. To provide this alignment, the base mounting surfaces for the rotor bearings and motor are planed in one operation on a traveling bed planer.

This is but one of the many extra quality control steps taken throughout the process of manufacturing a Jacobson Hammermill . . . every step reflecting the Jacobson determination to provide complete customer satisfaction.



Write for Bulletins and Name of Representative

Jacobson Machine Works, Inc.

1090 TENTH AVE. S.E. DEPT. M. MINNEAPOLIS 14, MINN.

NAMES

(Continued from page 16)

ed special account executive for the western district, working out of the company's Torrance, Cal., plant, and David D. McClintock has been appointed sales representative for the Chicago district.

Mr. Gigler, formerly technical service representative for the western district, will cover the southern California area, and has been assigned initially to handle several Los Angeles accounts. He will continue to do technical service work for the western district.

Mr. McClintock's principal sales territory will be Wisconsin and the Chicago area.

EDWARD WALFORD JOINS ARBOR ACRES STAFF—Edward S. Walford has joined the staff of Arbor Acres Farm, Inc., Glastonbury, Conn. A poultry specialist for Hall Brothers Hatchery since 1933, he will serve in the Arbor Acres overseas division at Associated Broiler Breeders Ltd., Chelmsford, England, an affiliate.

Mr. Walford attended McGill University, Montreal, Canada, and graduated from the University of Connecticut. He served six years on the staff at Connecticut University prior to joining Hall Bros.

TRIPLE "F" NAMES FIVE SALES MANAGERS—Triple "F" Feeds, Des Moines, Iowa, has named five more sales managers to hire and supervise sales personnel in their assigned areas, according to J. Kenneth Lepley, director of sales.

Donald A. Bowman

Assigned areas were: Dale Buckmaster, Fremont, Neb., northern Nebraska; Glenn D. Riley, York, Neb., southern Nebraska; Donald A. Bowman, Fairfax, Mo., Kansas-Missouri; F. J. Leinhauser, Minneapolis, Minnesota, and U. G. Davis, Dixon, Ill., Illinois. All were formerly with Foxbilt Feeds.

Dale Buckmaster — Glenn D. Riley — U. G. Davis — F. J. Leinhauser

Four other sales managers were appointed earlier by the company (Feedstuffs, Oct. 28).

ARTHUR WARDWELL, JR., NAMED COBB REPRESENTATIVE—Arthur Wardwell, Jr., has been named by Cobb's Pedigreed Chicks, Inc., to the staff of special service representatives, it was announced by H. Ted Raymond, Jr., sales manager.

Arthur Wardwell, Jr.

Mr. Wardwell will work throughout the northeastern area, with Cobb's Concord, Mass., headquarters as home base. Mr. Wardwell at one time operated a hatching egg production farm with his father at North Reading, Mass., and for the past 13 years has conducted his own operations.

ALLAN BULKLEY, JR., JOINS WIRTHMORE—Allan Bulkley, Jr., Odessa, N.Y., has joined the poultry sales and service staff of Wirthmore Feeds, Inc., Olean, N.Y., according to George Enderly, division sales manager.

Allan Bulkley, Jr.

Mr. Bulkley formerly owned and operated a Leghorn breeding farm, and, prior to joining Wirthmore, worked with Cornell University. His sales area will include central New York.

MAX KANTOR JOINS MINNESOTA LINSEED AS VICE PRESIDENT—Max Kantor, formerly vice president of research at Honeymead Products Co., Mankato, Minn., has joined Minnesota Linseed Oil Co., Minneapolis, as vice president in charge of technical oils, sales and service.

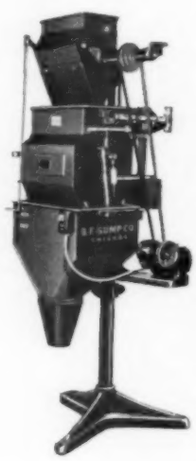
Mr. Kantor spent 10 years with Cargill, Inc., and was director of special products sales when he left in 1959 to start a chemical consulting firm, Max Kantor Assoc. He joined Honeymead in 1960. He is a University of Minnesota graduate in chemical engineering, and holds an MS degree from Lehigh University.

JAMES W. RINGWALD TRANSFERRED BY BUNGE—The transfer of James W. Ringwald, vice president of the Bunge Corp., to the firm's Kansas City office was announced by Walter C. Klein, president of the company, which exports U.S. agricultural commodities.

Mr. Ringwald will supervise and coordinate the interior river opera-

Weigh up to 50-pound packages with accuracy and speed

EDTBAUER-DUPLEX
Automatic
NET WEIGHERS



Accurate, simple to install and operate—and requiring almost no maintenance—Edtbauer-Duplex Weighers give years of the most satisfactory service. Fifty-pound bags of feeds, including pellets and crumbles, are accurately weighed. Smaller models efficiently handle pet foods, rice, corn meal and other cereals, pancake and whole wheat flours, and other mill products in packages from two to 50 pounds. Our engineers will be glad to help you plan a practical, economical installation.

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1310 South Cicero Avenue, Chicago 50, Illinois
SALES AND SERVICE
New York 36—JABEZ BURNS AND SONS, INC.—600 W. 43rd Street
San Francisco 5—TEMPO-VANE MFG. CO.—330 First Street
Dallas 2—J. B. WILLIAMS—1026 Young Street

ONE DAY SERVICE

Yes, Columbia Quarry gives you one day service on bulk orders . . . and in covered hopper cars too! CQ has the products . . . the equipment . . . the service! For complete information on Columbia Quarry's original Dust-Free, Easy-Mixing, Free-Flowing Calcium Products write . . .

COLUMBIA QUARRY COMPANY
1007 Washington Ave., St. Louis 1, Mo.

FEED DOESN'T BRIDGE

in the NEW Chore•Boy Bulk Feed Bin!

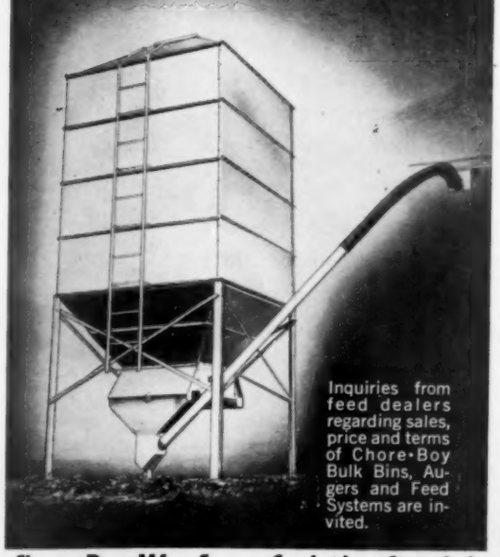
Bridging—a serious trouble with many bulk feed bins—is a thing of the past. Chore•Boy's **exclusive** steel-mesh belt delivery keeps feed moving steadily through the entire area of the bottom hopper opening . . . feed at sides of bin keeps moving down, eliminates places for bridges to form. Developed for use with world-famous Chore•Boy Herringbone milking-Feeding-Handling System, this new bulk feed bin and its revolutionary **flexible auger** has been proven in all kinds of farm operations all over North America . . . in poultry, hog and other feeding systems. IN ADDITION to the Bulk Feed Bin, Chore•Boy provides a complete line of feed system components. Write for **free** Feed Systems brochure.

EXCLUSIVE! Flexible Auger goes around corners!

One source of power carries feed anywhere . . . up, down, around the corner! Chore•Boy Flexible Auger requires no extra power, no right-angle transfer equipment. Outside, Flexible Auger carries feed from bulk bin to barn. Inside, this revolutionary unit may be installed to carry feed to mangers, feed troughs, etc. Tested in use in many different applications, Chore•Boy Flexible Auger is simple, economical, **reliable**, requires very little power to operate.

Use indoors or out. Strong fiberglass construction.

BE SURE to get all the facts on Chore•Boy's new Bulk Feed Bin and Flexible Auger, along with Feed Systems Components . . . help build your profits!



Inquiries from feed dealers regarding sales, price and terms of Chore•Boy Bulk Bins, Augers and Feed Systems are invited.

Chore•Boy Mfg. Co. • Cambridge City, Ind.
Division of Golay & Co., Inc.

Enzymes are not new... enzymes that work are

HERE ARE SOME FACTS ABOUT

NOP GRO®

Patent Pending

Nopgro is most beneficial in

low protein / high fibre rations

where the protein level is 10.5% or less

AND NOW THAT NOPGRO IS OUT OF THE LABORATORY · AND INTO THE FEEDLOT

here are three rules of thumb for your consideration

1. Feeding Nopgro increases gains by 0.25 lb. per head, per day.

2. It takes gains of only 0.02 lb. per head, per day, to pay for Nopgro.

3. In 82% of the last 17 field trials, Nopgro brought extra profits averaging $2.90 for every 60c spent for Nopgro.

Find out more about Nopgro, the feed additive for this decade. Let us prove to you that low-protein rations, with just a pinch of Nopgro, will perform as well as medium-protein rations . . . or better. Fill in and mail the coupon.

Nopco Chemical Company
Newark, N.J.

Please send me your round-up of facts about Nopgro.

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Company name_____

Address_____

City, zone, state _____

NOPCO CHEMICAL COMPANY NOPCO®

60 Park Place, Newark, N.J.

Plants: Harrison, N.J. • Richmond, Calif. • Cedartown, Ga. • London, Canada
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Manufacturing Licensees Throughout the World

Basic producers of Micratized® Vitamins A and D, niacin, calcium pantothenate, enzymes and other products

WESTERN BRAND

YEAST CULTURES

FOR ALL LIVESTOCK AND POULTRY, INCLUDING TURKEYS

LOWER FEED COSTS
BETTER FEED CONVERSION

SUPPLY YOUR FEEDS WITH

1. Yeast Cell Activity
2. Digestive Enzymes
3. Unidentified Factors
4. Natural B Vitamins
5. Better Palatability

College Tests Show Yeast Culture Values. Also Proven by Feed Manufacturers, Broiler and Turkey Farm Tests and Also on Our Own Yeast Culture Feeding Demonstration Farm in Hog and Cattle Feeding.

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WESTERN YEAST COMPANY
Chillicothe, Illinois

ARE YOU A FEED MANUFACTURER WITH PROBLEMS?

New Products? Formulation? Production? Marketing? Labeling?

Now, for the first time, an organization of experienced experts has been formed to give you guidance in:

THE CREATION OF NEW PRODUCTS . . . NEW PRODUCT INTRODUCTION . . . FORMULATIONS . . . CLINICALS . . . LABELING . . . VETERINARY . . . MERCHANDISING . . . FEDERAL TRADE COMMISSION . . . FOOD & DRUG ADMINISTRATION . . . DEPARTMENT OF AGRICULTURE . . . LEGALLY SUPERVISED IN ALL AREAS.

We are prepared to discuss your problems without obligation on your part.

Please write:

AGRICULTURAL PRODUCTS RESEARCH COUNCIL

53 West Jackson Boulevard • Chicago 4, Illinois

tions of Bunge, including elevators at Helena and Osceola, Ark.; Cairo, Ill., and Greenville, Miss., as well as a newly opened office in Chicago.

Walton F. Mulloy, vice president of Bunge Corp., will continue as manager of the Kansas City office.

SIMON-CARTER APPOINTS IVAN S. KLING AGENT IN OHIO—The Simon-Carter Co., Minneapolis, has appointed Ivan S. Kling, sales representative in western and southern Ohio. Mr. Kling will handle the complete line of grain and seed cleaning equipment in this area. He has experience in the sale and installation of steel buildings and other allied equipment in the grain industry. His home is Columbus, Ohio.

Ivan S. Kling

GENERAL SUPPLY NAMES TWO REPRESENTATIVES—General Supply & Equipment Co., Brooker, Fla., has named two sales representatives for Redi-Mill and Auto-Mill sales in the South.

Ted D. Bigham, Brooker, and Donald Kalkutt, Florence, S.C., have been

Ted D. Bigham Donald Kalkutt

added to the staff of factory sales representatives promoting the firm's on-farm mixer-grinder and complete mill and storage facilities package.

Mr. Bigham has had sales experience throughout the Southeast and will cover the entire South as a sales coordinator, with headquarters in Brooker. Mr. Kalkutt, manager of a South Carolina feed mill five years, with previous farm-to-farm sales experience, will cover the Carolinas for General Supply.

WHITMOYER APPOINTS MARVIN EARL MISSOURI REPRESENTATIVE—Marvin S. Earl has been named representative in Missouri of Whitmoyer Laboratories, Inc., Myerstown, Pa., according to Henry C. Suppan, sales manager.

Marvin S. Earl

Mr. Earl, an agricultural graduate of the University of Missouri with experience in dairy and marketing, will work with Whitmoyer customers in the poultry, livestock and feed industries in properly utilizing Whitmoyer health control and nutritional products.

NAMED RHODE ISLAND DIRECTOR OF AGRICULTURE, RECREATION—Francis N. Perry, Bristol, former feed salesman for General Mills, Inc., has been named by Gov. John A. Notte, Jr., as Rhode Island director of agriculture and recreation. Mr. Perry, a graduate of Rhode Island State College with a BS degree in animal and dairy husbandry, has been assistant manager of the Buttonwoods Dairy in Warren.

New Plant Opens

KOSCIUSKO, MISS. — Riverside Industries has opened a plant at Kosciusko, an 8,000 sq. ft. steel and concrete building, 7,200 sq. ft. of which is a hull room and seed room.

The firm, which has plants at Pontotoc, Tupelo, Starkville and home office at Marks, all in Mississippi, manufactures feeds, fertilizers, insecticides and other farm products, and operates cotton seed and soybean processing plants.

Also headquartered in the new building is the office of newly-appointed district manager, Harvey Simmons of Kosciusko. Allen Simmons is local manager.

CHAMPION

MOBILE MILL EQUIPMENT

BUY CHAMPION WITH CONFIDENCE . . .

IN PROFITS—Champion owners are consistently recording substantial profits from operations on service charges alone. This eliminates the need for depending on feed and molasses profit to carry the entire mobile service.

IN DEPENDABILITY—Champions are simply designed and built to give year round trouble-free service with a minimum of maintenance. Maintenance can be performed locally on Champion units without the need for special service at a designated parts and service depot.

IN PERFORMANCE—Champion mobile's large capacity can grind a two- to three-ton batch in as little as six minutes. The grind can be regulated from coarsely ground or cracked grains to finely ground feed.

CHAMPIONS are built to BUILD your BUSINESS and your PROFITS!

LOOK AT THIS CHAMPION OWNER'S* REPORT:

Service sales, mixing and grinding.....$1175.00
Fuel cost, including road travel..... 72.96

*Name on request.

Write for Bulletin 118 and details of Champion's Finance Plan

CHAMPION PORTABLE MILL CO. 2109 COMO AVENUE SOUTHEAST MINNEAPOLIS 14, MINNESOTA

WHEAST

The New Protein Fermentation Concentrate

H. V. NOOTBAAR & CO.

PASADENA • PALO ALTO

Pellet Mills Are Our Only Business

New, redesigned Oliver pellet mills give you higher efficiency and lower cost of operation. 20 years of experience bring new modern methods of design and construction that give the greatest profitable service.

For Complete Details Write:

Oliver Machine Works

2518 North Lee Street
South El Monte, California

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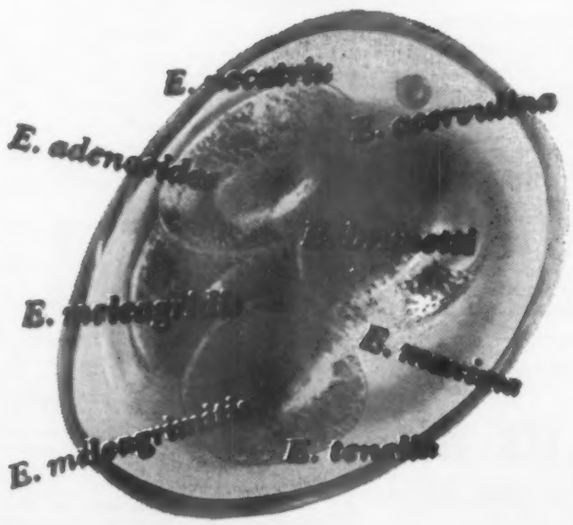

TO TREAT COXY OUTBREAKS ...EFFECTIVE AGAINST ALL IMPORTANT COCCIDIAL SPECIES

No other drug can match the effectiveness, safety, and economy of S.Q. in treating outbreaks of coccidiosis in chicks, poults, pullets—*and* birds in production. Unlike other drugs, S.Q. works best during the all-important 72- to 96-hour period after infection, when coccidia are most vulnerable to medication.

S.Q.—used promptly at therapeutic levels—will check coxy outbreaks . . . cut losses by holding mortality and stunting to a minimum . . . keep flocks on feed until the outbreak is under control.
Merck Chemical Division, Merck & Co., Inc., Rahway, N. J.

S.Q.® *with* THE MERCK MARGIN OF SURETY

® TRADEMARK OF MERCK & CO., INC., FOR SULFAQUINOXALINE.

☆ Classified Ads ☆

Classified advertisements received by Tuesday each week will be inserted for the issue of the following Saturday. Rates: 25¢ per word; minimum charge $3.75. Situations wanted, 20¢ a word; $3.00 minimum. In figuring cost of your classified ad . . . each word, abbreviation, telephone exchange and number, set of initials, or group of figures counts as a word. To the number of words in your want ad itself add six (6) words for your name and address or name and address of your firm. This applies for both direct-reply ads and for blind ads containing a box number. If an ad is keyed, care of Feedstuffs, 25¢ per insertion additional charged for forwarding replies. Commercial advertising not accepted in classified advertising department. Display advertising accepted for insertion at minimum rate of $14.00 per column inch. No discount on ads ordered for more than one insertion.

All Want Ads cash with order.

SITUATIONS WANTED

INDUSTRIAL VETERINARIAN — NINE years' feed and pharmaceuticals, product development, research, FDA matters. Age 43. Will relocate. Address Ad No. 7390, Feedstuffs, 141 W. Jackson Blvd., Chicago 4, Ill.

FIELD REPRESENTATIVE FOR SALES, service to North Carolina farmers, experienced in poultry, livestock feeding and management. Successful sales record. Married, age 35, college, 11 years' total experience. Six years with major feed company. Address Ad No. 7376, Feedstuffs, Minneapolis 40, Minn.

BUSINESS OPPORTUNITIES

FOR SALE—FEED MILL, NORTH MISSOURI. Good territory, well established. Grinding, mixing, shelling, scales, bulk and trucks. Address Ad No. 7382, Feedstuffs, Minneapolis 40, Minn.

FEED MILL FOR SALE—LOCATED MAIN street and highway. Steam roller, grinder, mixer. Truck and trailer. Reason for selling, ill health. Spencer Black, Box 265, Snowflake, Ariz.

FEED MILL, CENTRAL CALIFORNIA— Storage capacity 4,500 tons, complete mill, mixing capacity 13,000 tons. Bulk truck, own spur track S.F. Ry.; 1¾ acres land, with house. Address Ad No. 7347, Feedstuffs, Minneapolis 40, Minn.

FOR RENT—WOODSTOCK, ILLINOIS. Established feed and grain elevator. All modern equipment. Well stocked. Large bulk and bag storage areas. Railway siding. Ideally located in grain producing area. Financing or partnership available to responsible party. Contact: Carol Franks, Marengo, Ill.; Jordan 8-8681.

HELP WANTED

NATIONALLY KNOWN FEED COMPANY has openings for regional credit managers. A true challenge for trained men who can assume real responsibility. Address Ad No. 7372, Feedstuffs, Minneapolis 40, Minn.

SALESMEN WANTED — EXPERIENCED salesmen to sell baler and binder twine on a commission basis. Can be sold in addition to your present lines. Prime territories in Illinois, Missouri, Kansas, Nebraska and the Dakotas open. Please give qualifications and references. Address Ad No. 7377, Feedstuffs, Minneapolis 40, Minn.

SALESMEN WANTED

We are seeking salesmen for New England and Middle Atlantic States. This position requires traveling with a car and expenses are provided. We are forming a new sales organization. We are a large and long-established National Manufacturer of feed ingredients. The men we are looking for should have sales experience calling on feed manufacturers. Compensation is salary and expenses. All replies are strictly confidential.

Address Ad No. 7191, Feedstuffs Minneapolis 40, Minn.

Buy and Sell
through
WANT ADS
—In—
FEEDSTUFFS

MACHINERY WANTED

WANTED — SCREW CONVEYOR, STEEL boxes, covers, beamings and hangers, etc. Selma Soybean Corp., Selma, N. C.

WANTED — OLD MODEL OR JUNKER Helm jumbo pellet mill. Lloyd Walker, Lincoln, Kansas; Phone Lambert 44107.

BAG CLOSING SEWING MACHINES AND equipment. Any type—condition. McCullough & Co., 8205 Paradise Lane, Kansas City 34, Mo.; SO 1-2857.

WANTED TO BUY—50 TO 100 H.P. USED California and Sprout-Waldron pellet mills. Address Ad No. 7352, Feedstuffs, Minneapolis 40, Minn.

WANTED TO BUY—RICHARDSON scales, bag closing machines, other good flour, feed and grain machinery. Complete plants bought and sold. Appraisals. J. E. Hagan Mill Machinery, Box 574, Jefferson City, Mo.

WANT TO SELL
Your Useable Machinery, Equipment, Storage?

Must be moveable, 80% of new, post-war manufacture.

Full information please, make, model, specifications, picture, prints, sketch and price. (Prints copied and returned.)

NATIONAL EQUIPMENT REGISTER
Box 26, Ashland, Ky. 325-4759
Interest limited 500-mile radius.

MISCELLANEOUS

ZELENY SEDIMENTATION TEST KIT

Book your order now for immediate shipment or delivery next year on the Zeleny Sedimentation Test Kit. Burrows offers the lowest priced kit on the market, complete with all necessary accessories to comply with U.S.D.A. regulations. For details and circular write—

BURROWS EQUIPMENT COMPANY
1316-C Sherman Ave., Evanston, Illinois

Government Surplus
BOLTED STEEL GRAIN TANKS

Diameter	Capacity per ft. of height	Maximum height
38 ft.	992 bu.	66 ft.
55 ft.	2,004 bu.	55 ft.

Also furnished with 13' x 10' doorways for warehouses. Present location—Lima, Ohio. Standard steel sections erected anywhere at substantial saving.

MORRISON GRAIN COMPANY
Box 748, Salina, Kansas
Phone Collect: TAylor 7-9331

MACHINERY FOR SALE

FOR SALE—CALIFORNIA CENTURY 75 H.P. pellet mill with cooler. Hell 8D 8x24 dehydrator complete. Napoleon Alfalfa Mills, Inc., Napoleon, Ohio.

FEED MIXER, 1-TON CAPACITY, GUAR-anteed first-class throughout, 5 H.P. motor drive. Address Ad No. 3479, Feedstuffs, Minneapolis 40, Minn.

CHAMPION MOBILE GRINDER AND mixer mills. Champion Portable Mill Co., 2105 Como Ave. S.E., Minneapolis 14, Minn.

FOR SALE—ONE USED VAC-U-VATOR, Model 670, 4-wheel, with 60 ft. pipe. Houston Feed & Farm Supply, Houston, Minn.

WHIRLAWAY AIRBLAST CAR LOADERS, flour, feed and grain machinery. One of the oldest and largest experienced equipment houses. J. E. Hagan Mill Machinery, Box 574, Jefferson City, Mo.

MOBILE MILLS, NEW, USED AND FAC-tory rebuilts. Complete with grinder, mixer, diesel, molasses. Financing available. Iowa Portable Mill Co., Oelwein, Iowa.

PNEUMATIC "AIR-LIFT" CONVEYORS— Package Units or "Bid-It-Yr-Self" kits. Capacity 1 to 100 ton/hr. up to 1,000 ft. Conveys free flowing material wet or dry. Nolder Co., Box 14, Corona Del Mar, Cal.

FOR SALE—WHIZZER BAGGING CON-veyors, Richardson scales, Union Special, Minneapolis, Fischbein sewing heads, one to seven ton square bins, welded spouting and elbows. Winborns Mill Equipment Service, Williamsburg, Iowa.

SEWING MACHINES — ALL TYPES CON-veyors, swinging units, portables. New and used. Fischbein, Union Special, Minneapolis. Complete rebuilding and service. McCullough & Co., 8205 Paradise Lane, Kansas City 34, Mo.; SOuth 1-2857.

FOR SALE — FEEDLOT TRUCK, CROSE automatic feedlot truck with Fairbanks scales, self contained on 1960 Ford chassis. Almost new, immediate delivery, $11,500, f.o.b. Oregon, Washington and northern California. Address Ad No. 7374, Feedstuffs, Minneapolis 40, Minn.

FOR SALE—ENCLOSED MOTORS; RICH-ardson scale; truck scales; hammermills; oat crimpers; horizontal and upright feed mixers; sewing machines; elevator legs; screw conveyors; molasses mixers and pellet mills. J. E. Hagan Mill Machinery, Box 574, Jefferson City, Mo.

NEW S. HOWES, JR. B CORN CRACKER and grader complete; one used Jr. B corn cracker and grader; one (used) Jay Bee hammermill, Model 3UX; one Singer bag repair sewing machine, mounted on table; 20 used Draver feeders, various sizes. Penn Bangor, Inc., 25 North Main St., Bangor, Pa.

Used Moisture Testers

Model S Steinlite Moisture Testers, completely reconditioned price, $75 each. Write or phone collect:

BURROWS EQUIPMENT CO.
1316-C Sherman Ave. Evanston, Illinois

LIQUIDATION
OMAHA, NEBRASKA

2—145 cu. ft. horiz. ribbon mixers.
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CALIFORNIA

(Continued from page 10)

about 70% of normal nutrients to delay maturity.

COTTONSEED MEAL FOR LAYERS—Dr. C. R. Grau of the Universisty of California said that there is a good potential for cottonseed meal for layers if the gossypol problem can be avoided. He said that the bio-assay method is the only one to use, that there is not a good chemical method for checking on gossypol. At this time, he said, one should not use gossypol-containing products for hens unless the products have been tested with hens. If cottonseed meal is fed to layers, one should be sure it is safe.

ENZYMES—Dr. F. H. Kratzer of the University of California reviewed information on enzymes and water treatment, including effects on western barley. He noted that there may be inhibitors in some feedstuffs and that water treatment or enzymes may overcome this. Also, there may be other ways to overcome inhibitors.

PARAKERATOSIS IN CATTLE FEEDING—Dr. William Garrett of the El Centro station reviewed information on parakeratosis and told of work on this problem in the Imperial Valley.

He said research indicates that in cases of this where cattle are fed pellets, it appears to be not from pelleting itself but to be related to fine grinding of feeds. There may be an alteration of rumen function with finely ground feedstuffs.

Showing that the cause may not just be pelleting or fine grinding itself, Dr. Garrett noted that Colorado workers found an 8% incidence of rumen parakeratosis in cattle not fed pelleted rations, and there was a 7.8% incidence in lambs on pasture. In the Imperial Valley, workers found some of the condition in animals coming off range. There was no effect on subsequent performance in these cases.

Dr. Garrett said parakeratosis has been found in some cattle being fed when no pellets were used; also some cattle on pellets have not had it. But there is an increase in some instances of pellet feeding. And some lambs have gained less. The condition has been found to be most severe where most of the feed is finely ground.

Steers getting long oat hay with pellets were shown to gain more than those on pellets alone.

Feed particle size appears to be a factor, Dr. Garrett said, but this alone is not responsible. There have been cases of finely ground all concentrate rations where the condition does not appear.

Differences in rumen function and less salivation may be involved.

Dr. Garrett concluded that there may be a minor incidence of parakeratosis on all diets, but that it is usually more severe, with feed consumption down, if finely ground pelleted feed is used. It is not pelleting itself which causes the problem, but rumen function may be altered with finely ground feeds.

WATER INTAKE AND WET DROPPINGS—Dr. F. W. Hill of the University of California pointed out that California is working on the problem of water intake and wet droppings among layers but that no solution has yet been found. The field problem seems to be one of voluntary water intake. In this connection it has been shown that some strains consume more water. Intake is highly variable among hens; also, one hen varies. Some birds may consume two to three times the amount thought to be required.

There may be a physiological reason why excess water is consumed; the problem is to find what is involved.

It was mentioned that limitation of water can be carried out. It has been

shown that one can limit water some and not hurt performance.

Dr. Hill noted that there is a great increase in water consumption and excretion when egg production starts, indicating that hormonal relationships may be involved. Blood pressure may be a factor, he continued. Blood pressure tends to be higher in high producing birds, and with high blood pressure there is a greater rate of urine formation. Rate of food intake is not a major factor. Sodium and iron ions are being studied now.

VITAMIN A FOR RUMINANTS—Dr. Magnar Ronning of the University of California pointed out that there has been some confusion regarding vitamin A for ruminants, and he noted that California currently is conducting a project with eight feedlot operators. Cattle are being checked in the feedlot, including use of the liver biopsy technique, and the animals will be followed to slaughter. Researchers are testing supplements and they are checking on use of one shot of carotene into the rumen.

Dr. Ronning also pointed out some problems in connection with the stating of vitamin A requirements; this has to do with conversion of carotene to vitamin A.

He mentioned that NRC stated requirements for vitamin A are associated with research on maintenance and that the requirement for feedlot cattle may be higher.

In conversations in connection with a discussion of vitamin A, it was noted that many California feedlot operators are now adding 40,000 units of vitamin A per head per day to feedlot rations. Also, some give large doses when animals enter the feedlot.

PELLETED HAY FOR DAIRY PRODUCTION — Dr. Ronning discussed pelleting of hay for dairy cows and pointed out that it has not been determined why butterfat content of milk drops when pellets are fed. California now recommends that at least 10 lb. of long hay be fed along with pellets. A lot of pellets are now used, and this works out all right if 10 lb. of long hay are fed per day.

BEEF AND DAIRY CATTLE PANEL DISCUSSION—Several questions on such things as minerals, vitamin A, pelleting, grains and grain feeding of dairy cows were discussed in a panel session covering large animals. In some cases definite answers were provided; in others it was noted that a good deal more research information is needed.

Phosphorus—Dr. S. E. Smith of Cornell said that the minimum phosphorus requirement for dairy calves is .22% but that .30% is suggested to provide a safety factor. For beef cattle in the feedlot, .25% of the total ration is the stated requirement. For dairy cattle, it depends on body weight and level of production. . . . Can too much phosphorus be fed? One can feed too much of anything, said Dr. Smith. Normally, he continued, one thinks of a calcium-phosphorus ratio of 2:1 on one extreme and 1:2 at the other extreme. . . .

Will phosphoric acid in molasses help control milk fever through control of the C:P ratio? The panel had no information on this. . . . Dr. Magnar Ronning of California said that the university is working on the possibility of high phosphorus and low calcium before calving as a means of controlling milk fever. . . . Dr. Smith reminded the audience that a ruminant can use phytin phosphorus.

Milo vs. Barley—A member of the audience said Arizona work indicated that equal parts of barley and milo were better than either grain alone for beef cattle. . . . Dr. William Garrett said his work showed no difference in palatability between rolled and ground grain, with no significant difference in consumption. No molasses was used on the grain in the work referred to above. The total amount of concentrate in the ration reported on was 80%; of this 65% was barley or milo. . . .

Does milo have an advantage over barley in dairy feeding? Dr. Ronning said that the grains were considered equal as part of the concentrate ration. . . . Dr. Garrett pointed out that, in his work, there was 4% more moisture in barley than in milo. All comparisons were on a dry basis. He advised feed men to take account of moisture differences in grains.

Pelleting and Wafering—Is it pelleting or fine grinding that causes parakeratosis in cattle? Dr. Garrett referred to work mentioned above and said that fine grinding is associated with the problem. It is not pelleting itself, nor is it just fine grinding, but there tends to be more parakeratosis where feed is finely ground, as in pellets. Some severely affected animals, by the way, have gained well. There has been some incidence with wafers, but it has been minor. A ¼ in. pellet, with the feed finely ground, was found worse than a ⅝ in. pellet in causing parakeratosis. . . .

Dr. Ronning said that so far as butterfat content of milk is concerned (where there has been depression on pelleted feeds), wafers are no worse than chopped hay. Level of grain feeding also may be involved, he noted; high grain and low roughage rations can cause depression. Where some dairy cows have been fed pellets for six months, there was no parakeratosis. When there is a butterfat depression, there is not a depression in solids-not-fat. Some said that solids-not-fat would increase, but this has not happened, he said. . . .

If pellets are fed to beef cattle, it helps some if long hay is also fed, but this does not eliminate parakeratosis. However, it will increase gain and feed consumption.

Solids-Not-Fat — With a change coming up in California milk marketing, there is interest in whether feeding can affect solids-not-fat content of milk. At this point, said Dr. Ronning, there is not much hope that SNF can be increased through feeding. It drops if there is under-feeding, but it cannot be increased. He said there is no method or ingredient known to increase SNF. . . . A person in the audience said that in England, they have raised SNF by

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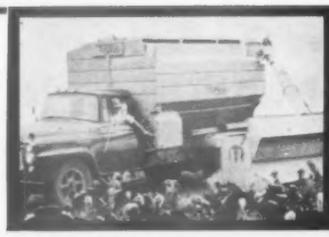

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CALIFORNIA CONFERENCE—Some of the speakers, program participants and others present for the California Animal Industry Conference in Fresno are pictured here.

Three of the guest speakers are shown in the first photo. Left to right, Dr. Robert White-Stevens, American Cyanamid Co., Princeton, N.J.; Dr. Ruth Renner, University of Alberta, and Dr. S. E. Smith, Cornell University.

Shown visiting in the second picture are Dr. Magnar Ronning, University of California, a speaker, and R. E. Green, Standard Brands, Inc., New York.

In the third picture are two of the program participants—Hobart Halloran (left), Halloran Research Farm, Modesto, Cal., and Dr. O. P. Blaich, University of California.

Industry men from coast to coast were present for the conference, as illustrated in the fourth photo. Visiting are Winslow Hall, Pacific Molasses Co., San Francisco, and Roy Cohen, Commercial Solvents Corp., New York.

½% by use of a high plane of nutrition. . . . There is some hope of selecting cows for higher SNF content of milk; the characteristic was said to be about 20% heritable.

Vitamin A and Carotene—There was some discussion of methods of stating carotene and vitamin A requirements and of conversion of carotene to vitamin A. It was brought out that NRC figures on the beef requirement for vitamin A were based on animals not growing fast and that a higher level is needed. . . . Dr. Garrett noted that the present California recommendation for feedlot cattle is 3,000 I.U. of vitamin A or 6 mg. of carotene per 100 lb. of body weight. . . . A member of the audience pointed out that there is not necessarily a relationship between liver storage of vitamin A and performance.

Dairy Feeding—A discussion of levels of grain feeding of dairy cows brought several comments from the audience as well as California scientists. A member of the audience said that full feeding generally pays. . . . One person mentioned one recommendation that it pays to feed more grain up until milk production is off. . . . It was said that some cows consumed 35 to 40 lb. of grain daily and that it works out well. . . . Another person told of a case where enough concentrate had been fed until the cows reached their limits of milk production, when the feed began to go into fat on the animal. . . . Dr. Ronning said that California is interested in the possibilities of all concentrate rations for dairy cows but that it is not yet known how this can be done.

POULTRY PANEL DISCUSSION—Several aspects of poultry feeding were discussed in a panel session in which some of the conference speakers took part.

Feeding Replacement Pullets—For restriction, Dr. Syd Fox of England suggested 870 Calories of metabolizable energy and 11½% protein. It was noted that this does not mean that the feed should contain these levels, but having this would result from restricting to 70% a diet at 1240 Calories of metabolizable energy per pound and 16.4% protein. This type of restriction is accomplished by permitting only a certain percentage of the normal amount of feed. It was pointed out that levels of vitamins and minerals should be increased.

Energy Values—Dr. H. R. Bird of Wisconsin said that for certain uses, productive energy figures may be more applicable than metabolizable energy values. Dr. F. W. Hill of California said that his objection to productive energy values is that they are inaccurate for certain ingredients, such as soybean meal. The scale was said to under-rate soybean meal and over-rate meat scraps. In addition, the available figures now are on metabolizable energy for fats. Dr. Hill said that in general he feels that metabolizable energy figures should be used.

Minerals—For growing chickens and turkeys, said Dr. Bird, there may possibly be a reduction of the calcium and phosphorus requirements from the NRC figures. For the first week of a chick's life, the requirement may be higher than the NRC requirement, but it is not essential to meet these high requirements on a practical basis.

Cottonseed Meal—Dr. C. R. Grau said that a guarantee for free gossypol does not indicate that a cottonseed meal is safe to use for laying hens. He said the meal has to be actually fed to layers, and the manufacturer should have a guarantee for active gossypol units (AGU) of less than 0.3. The meal will then meet the accepted "egg-tested" classification. . . . Dr. Grau said that protein quality of prepress solvent meals is usually better than that of expeller meals because there is less heat in manufacturing. . . . Egg discoloration can be caused by a cottonseed meal with a guarantee of .04% free gossypol. It was noted that the free gossypol method is chemical while the AGU figure is determined by bioassay procedure. . . . Dr. Grau said that prepressing is necessary in the solvent extraction procedure in order to bind the gossypol so that it is not available to the hen to put into the yolk. He said that up to 10% of the meal can be fed if it has a guarantee of less than 0.3 AGU.

Dropped Crop—Dr. F. H. Kratzer of California said research has shown a genetic tendency toward dropped crop. He said he suspects that there is an increase because of increased water consumption since there is greater water consumption during hot weather. This may mean that more shade will help by reducing water consumption.

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HEARINGS

(Continued from page 1)

ern States Cooperative, Inc., Bldg.

Nov. 24-27 — Des Moines, Iowa, Senate Chambers, State Capitol.

Nov. 29-Dec. 1—Las Vegas, Nev., Clark Court.

Dec. 4-6 — Oklahoma City, Okla., New Federal Office Bldg.

Beginning Dec. 8 — Chicago, Ill., LaSalle Hotel.

The U.S. Department of Agriculture says supply-management of turkey hatching eggs would be on the basis of a percentage of the eggs handled during a base period or, in the alternative, on the basis of a percentage of currently available supplies of eggs.

Egg Volume Regulation

Three methods of volume regulation are proposed in the marketing order for turkey hatching eggs: (1) The desirable quantity established for hatching eggs which all handlers may set, or cause to be set, in any allotment period; (2) the desirable quantity which all handlers may receive at hatcheries for hatching in the allotment period, and (3) the percentage of available supply of hatching eggs which all handlers may set.

Allocation bases would be computed either by using the total number of hatching eggs the handler set in the 12-month period ending Sept. 30, 1961, or the total number of eggs set in the 24-month period ending Sept. 30, 1961, divided by two, or such comparable periods as may be established. If no eggs were set by any person during 1961, or if the set was not deemed representative, an allocation base could be established for each person by the committee named to administer the order, USDA explained.

Turkey Provisions

Volume regulation proposed for turkeys would apply to percentage set-asides at the handler level. This would be done by the handler multiplying the quantity of all turkeys handled by him in the set-aside period by the surplus percentage established for the period. Grade, size or quality of turkeys which would be set aside could also be prescribed.

In connection with administration of the marketing order or orders, a 60-member advisory board would be appointed by the secretary, with nominations for membership made by the industry at state nominating meetings. Also, a 19-member administrative committee would be appointed from the board.

"Membership of the board and committee would give due recognition to producers and also be representative of all segments of the industry," USDA officials said.

Joint Groups Possible

It is understood that it is possible that either one or two advisory boards and administrative committees could be appointed, if the marketing orders go into effect.

The proposed marketing orders and agreements state that if the secretary of agriculture should issue and make effective separate marketing orders regulating the handling of turkey hatching eggs and of turkeys, he may appoint the same advisory board and committee to function in their respective capacities for both orders.

The public hearings have been scheduled to receive evidence with respect to the economic and marketing conditions which relate to the provisions of the proposed marketing agreements and orders. Objections to the proposals and any suggested modifications will be heard.

(Initial rough drafts of proposed marketing orders for turkeys and turkey hatching eggs, much like those which will be considered at the five hearings, have appeared in Feedstuffs. Parts of a proposed order for hatching eggs appeared on page 7 of the Oct. 28 issue and selected provisions of a proposed turkey order were published on page 1 of the Oct. 21 issue.)

Definitions

In the proposed marketing agreement and order regulating the handling of turkey hatching eggs, a "producer" is "any person (individual, partnership, corporation, association or any other business unit) directly or indirectly engaged in the production of hatching eggs and who (1) has a proprietary interest in the eggs, or (2) who in a proprietary capacity operates and controls facilities for the production of hatching eggs and produces hatching eggs with such facilities; provided that, if two or more persons are producers with respect to the same hatching eggs, their respective percentage shares in the eggs for purposes of this order shall be deemed to be an amount of eggs equal to the total number of eggs so produced divided by the number of persons who are producers thereof, unless a written contract between the parties relating to such production submitted to the secretary of agriculture or the turkey hatching egg committee provides for a different percentage distribution of interest."

"Handler" in the proposed hatching egg order means "any person who handles hatching eggs, or causes hatchings eggs to be handled, and includes a person who handles hatching eggs of his own production."

"Allotment period" is defined as meaning "the 12-month period beginning on Oct. 1 of each year and ending Sept. 30 of the following year, or such other period as may be recommended by the turkey hatching egg committee and approved by the secretary of agriculture."

"Producer" in the proposed turkey marketing order means "any person directly or indirectly engaged in the commercial production of turkeys and who (1) has a proprietary interest in the turkeys or (2) who in a proprietary capacity operates and controls the facilities for the production of turkeys and produces turkeys with such facilities; provided that, if two or more persons are producers with respect to the same turkeys, their respective percentage shares in the turkeys for the purpose of this order shall be deemed to be an amount of turkeys equal to the total number of turkeys so produced divided by the number of persons who are producers thereof, unless a written contract between the parties relating to such production submitted to the secretary of agriculture or the turkey committee provides for a different percentage distribution of interest."

"Handling," as the word is used in the proposed turkey order, means "the slaughtering of turkeys for the production of meat and the disposition, storage or further processing of turkeys resulting from such slaughter."

A "fiscal year" is defined in both proposed orders as "the 12-month period from Oct. 1 in each year to Sept. 30 in the following year, or such other period as the secretary of agriculture, after recommendation of the administrative committee, may establish."

Advisory Board

The proposed marketing orders call for the establishment of a 60-member advisory board—either one for turkeys and another for hatching eggs or a single board for both turkeys and hatching eggs. Fifty-seven members of an advisory board would be selected to represent various states and regions. The remaining three members would be representatives-at-large, selected at the discretion of the secretary of agriculture. Also, each member of the board would have an alternate member selected in the same manner as for members.

Representation — Selection of the 57 members to represent various states and regions would be on the following basis:

Six members: California, Nevada and Hawaii; Minnesota.

Four members: Iowa.

Three members: Wisconsin, Virginia and West Virginia; Missouri; Texas.

Two members: Indiana; Utah and Arizona; Ohio; Arkansas; North Carolina.

One member: Colorado and New Mexico; New England states; Georgia and Florida; Alaska and Washington; Oregon; Pennsylvania; Oklahoma; Michigan; Nebraska; North Dakota; Illinois; Kansas; South Dakota; Kentucky and Tennessee; New York; Delaware, Maryland and New Jersey; South Carolina; Montana, Idaho and Wyoming; Alabama, Mississippi and Louisiana.

Term of office—Members and alternate members of the advisory board would serve for terms of three years ending Sept. 30 of staggered years. The term of office of the initial board would be three years for one third of the members and their alternates, two years for another third and for the remaining third the members and their alternates would run from the effective date of their service to Sept. 30, 1962.

Nominations — Nominations for membership on the board would be made at nomination meetings called and supervised initially by the National Turkey Advisory Committee and subsequently by a turkey and a hatching egg administrative committee or a joint turkey and hatching egg committee. These nomination meetings would be held in the states or groups of states represented by board members. Only producers or handlers would be eligible to vote and each of the eligible voters would have but one vote.

If the secretary of agriculture decided to appoint a single board and a single committee to regulate both the turkey and turkey hatching egg orders, each eligible voter would still have but one vote for purposes of voting on nominations to the board

Duties—Duties of the advisory board or boards would consist of: Selecting from its members a chairman and other officers, establishing procedures for performing its functions, nominating administrative committee members, making recommendations with respect to marketing policy and considering other matters.

Administrative Committee

The administrative committee (or committees) would be composed of 19 members and 19 alternate members selected from the members and alternate members of the advisory board (or boards).

Term of office—According to the proposed marketing orders, members and alternates of an administrative committee would run for one year ending Sept. 30, the initial term beginning with the effective date of their appointment and ending Sept. 30, 1962.

Powers—The administrative committee would have the power to administer terms and provisions of the marketing orders; to make rules and regulations to effectuate these terms and provisions; to receive, investigate and report complaints of violations, and to recommend amendments to the secretary of agriculture.

Duties—The committees' duties would include, among others: Acting as intermediary between the secretary of agriculture and producers and handlers, keeping records of its acts and transactions; investigating and assembling data on the production, handling and marketing of turkey hatching eggs and turkeys; assembling information on turkey hatching eggs and turkeys; selecting officers from its membership; appointing or employing persons as deemed necessary and determining their salaries and duties; arranging for auditing of its books once each fiscal year; preparing monthly statements of its financial operations, and establishing, with the approval of the secretary of agriculture, rules and regulations incidental to administration of the marketing order.

Appointed by Secretary

Members and alternates of both the advisory board and administrative committee would be appointed by the secretary of agriculture. The proposed orders specify that the secretary of agriculture, in making his selections, must "give due recognition to hatching egg and turkey producers, including consideration of the size, nature and location of their production operations, and reasonable handler representation with a view to the extent possible and practicable to have representation from all segments of the industry."

All decisions of the board and the committee reached at an assembled meeting would be by majority vote of the members present. A quorum of 30 members for the board and of 10 for the committee would be necessary for a valid decision.

Compensation

Board and committee members would be allowed payment of necessary expenses, actual or per diem, and, if deemed necessary, "reasonable" compensation for their services.

To pay expenses of marketing order administration, the committee would have authority to assess each handler, with respect to hatching eggs or turkeys handled by him, his pro rata share of all expenses which the secretary of agriculture found reasonable and likely to be incurred by the committee during each allotment period.

Each handler's pro rata share would be the rate of assessment per hundred hatching eggs or per hundred pounds of ready-to-cook turkey fixed by the secretary of agriculture. But these assessments would not, in any event, exceed 25¢ per 100 hatching eggs or 20¢ per hundred pounds of turkey.

In order to provide funds to carry out the functions of the board and committee, the committee would be able to accept advance payments from any handler and this would be credited toward his assessment.

If, at the end of a fiscal year, assessments collected were in excess of expenses incurred, the excess would be either retained in a reserve or refunded proportionately to persons from whom it was collected.

Golay & Co. Forms International Group

CAMBRIDGE CITY, IND. — A fourth division has been added to the roster of companies owned by Golay & Co., Inc., here.

The firm has just announced formation of Golay International Group, the Animal Industries division of which will handle overseas distribution of special farm feeding equipment, herringbone milking-handling-feeding systems and pipline milking systems manufactured by the parent firm's Chore-Boy Manufacturing Co. division.

Golay International Group was formed through a merger between Golay & Co. and Gasequip Co., an export organization in Cleveland, according to Charles R. Golay, president of Golay & Co., Inc.

All operations of the new export division have been moved to Cambridge City, Golay headquarters and home of the holding company's three manufacturing divisions.

The announcement states that in addition to serving as coordinator for all of the overseas marketing operations for Chore-Boy, Golay International Group will serve the Converto Manufacturing Co. and Lee Cylinders divisions of the parent firm in similar capacities. In addition to handling services for these Golay & Co. divisions, the export unit will also continue to direct export sales for a number of non-competitive companies which were formerly handled in the Gasequip operation.

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ALFALFA MEAL

Kansas City: Demand fair; trend steady to stronger; supply ample; 17% dehydrated alfalfa, 100,000 A pellets $45@46, reground pellets $46@47; 18% dehydrated alfalfa, 125,000 A pellets $46@49, reground pellets $47@50; 20% dehydrated alfalfa, 150,000 A pellets $50@56, reground pellets $52@57; unchanged.

Los Angeles: Demand and trend steady; supply ample; dehydrated meal, 17% protein, 100,000 A $50@51; dehydrated pellet meal, 17% protein, 100,000 A $52@54; suncured meal, 15% protein $41@42; suncured crumbles, 15% protein $43@44; all unchanged.

Boston: Demand spotty; trend easier; supply ample; dehydrated, 17% $58, sacked, down $1; suncured, 13% $48, sacked, nominal, unchanged.

St. Louis: Demand fair; trend steady; supply ample; dehydrated, 17% protein, 100,000 units of vitamin A, pellets $48.50, unchanged.

Memphis: Demand fair; trend steady to higher; supply ample; dehydrated, 17% protein, guaranteed 100,000 units vitamin A $53, up $1; reground pellets $51.60, unchanged.

Ft. Worth: Demand slow; trend steady; supply sufficient; sacked: dehydrated, 17%, 100,000 A $54.50, rail or truck, immediate, unchanged; suncured: 13% ¾-in. grind, No. 1 $42, truck, unchanged.

Cincinnati: Demand fair; trend steady; supply adequate; 17% dehydrated, 100,000 vitamin A $50@54, unchanged.

Chicago: Demand fair; trend steady; supply adequate; dehydrated, 17% protein, 100,000 units vitamin A $49.10.

Portland: Demand slow for suncured, good for dehydrated; trend steady; supply adequate; 15% suncured $40, sacked; 20% dehydrated pellet meal $69, sacked.

Seattle: Demand fair; trend firm; supply ample; suncured 15% protein $40, Seattle, up $1; dehydrated, 150,000 A units $67, Seattle, up $1.

Buffalo: Demand fair to poor; trend steady; supply fair; $58.10, sacked, Boston, unchanged.

Minneapolis: Demand good; supply adequate; 17% dehydrated, 100,000 units vitamin A reground pellets $50; oiled reground $51.

Denver: Demand fair; trend steady; supply ample; $46, up $4.

ANIMAL FAT (STABILIZED)

Los Angeles: Demand good; trend steady; supply ample; 5¼¢ lb., unchanged.

Ft. Worth: Demand fair; trend steady; supply sufficient; prime tallow, tank cars 5¼¢ lb., drums 6⅝@7¼¢ lb., f.o.b. north Texas packing plants with returnable drums, down ¼¢.

Boston: Demand fair; trend easier; supply good; tallow 5⅝@5¾¢ lb., unchanged to ⅛¢ lower; yellow grease 5@5¼¢ lb., off ⅛¢.

Memphis: Demand slow; trend steady; supply adequate; yellow grease 5¢ lb., prime tallow 5¼¢ lb., both unchanged.

St. Louis: Demand fair; trend steady; supply ample; yellow grease 5¢ lb., delivered tank trucks or cars, up ¼¢.

Chicago: Demand fair; supply good; trend firm; bleachable fancy tallow $5.75 cwt., tank truck or carlot; yellow grease $5.25.

St. Paul: Demand good; supply ample; trend lower; bleachable fancy off ⅛¢ to 5⅛¢ lb., f.o.b. producer's plant.

Atlanta: Demand good; trend stronger; supply short; 5¼¢ lb., f.o.b. Alabama and Georgia production points, up ¼¢.

BARLEY FEED

Los Angeles: Demand slower; supply adequate; trend steady; $3.62½ cwt., unchanged.

Boston: Demand quiet; trend steady; supply light; $45, unchanged.

Baltimore: Demand and supply fair; trend $2 lower; $43.50, sacked.

Chicago: Demand fair; trend easier by $2; supply ample; $33, sacked.

Seattle: Demand good; trend firm; supply fair; $48.50, truck lots, up 50¢.

Denver: Demand fair; trend steady; supply short; $2.55 sacked; $2.30 bulk, unchanged.

BLOOD MEAL

Los Angeles: Demand slow; trend steady; supply adequate; $5.25@5.50 a unit of ammonia, sacked, unchanged.

Chicago: Demand and supply fair; trend firm; 80% protein $132.50, sacked.

BONE MEAL (STEAMED)

Buffalo: Demand and trend steady; supply fair; $105, sacked, f.o.b. Buffalo, unchanged.

Chicago: Demand and supply fair; trend unchanged; $97.50, sacked.

Ft. Worth: Demand fair; trend steady; supply sufficient; domestic $100, sacked, f.o.b. Ft. Worth, unchanged.

Los Angeles: Demand fair; trend steady; supply adequate; imported $78.50, 20 ton lots, sacked, unchanged.

Boston: Demand and trend steady; supply steady; $105, unchanged.

Cincinnati: Demand good; trend strong; supply fair; $100, sacked, Cincinnati, unchanged.

Seattle: Demand fair; trend steady; supply good; $92, f.o.b. car Seattle, sacked, unchanged.

Denver: Demand good; trend steady; supply ample; $112.

BREWERS DRIED GRAINS

Chicago: Demand fair; trend steady; supply adequate; 24% protein $37@37.50.

St. Louis: Demand fair; trend steady; supply ample; 26% protein $41, unchanged.

Boston: Demand slow; trend easier; supply ample; $48, down $1.10.

Cincinnati: Demand poor; trend steady; supply adequate; $50, unchanged.

Los Angeles: Demand and trend steady; supply light; $51, unchanged.

Ft. Worth: Demand slow; trend steady; supply sufficient; 26% protein $57.50, sacked, November, unchanged.

Buffalo: Demand and supply fair; trend steady; $48, Boston, unchanged.

BREWERS DRIED YEAST

St. Louis: Demand fair; trend firm; supply ample; 9½@10¢ lb., carlots, sacked; 10½¢ lb., ton lots; 11½¢ lb., less than ton lots.

Chicago: Demand fair; trend steady; supply ample; 9½@10¢ lb., carlots, sacked; 9¾@12½¢ lb., l.c.l.

Los Angeles: Demand good; trend steady; supply adequate; 10¢ lb., 5 ton lots, sacked; 11¢ lb., 1 ton lots, sacked; 13¢ lb., less than ton lots, sacked; all unchanged.

Boston: Demand and supply steady; trend steady; 11¢ lb., unchanged.

Cincinnati: 9@10¢ lb., sacked, unchanged.

Buffalo: Demand slow; trend steady; supply fair; $9.15 cwt., f.o.b. Buffalo, unchanged.

Seattle: Demand slow; trend steady; supply ample; $12 cwt., sacked.

CALCIUM CARBONATE

Chicago: Demand fair; trend steady; supply ample; fine grind, plain, 100 lb. bags $9.54; bulk, in hopper cars $7.54; bulk in boxcars $8.05; granular grind $1 premium.

Minneapolis: Fine grind, 50 lb. bags $13.75; 100 lb. bags $13; bulk, boxcar $11.50; bulk, hopper $11; coarse grind $1 premium, delivered Minneapolis.

Los Angeles: Demand fair; trend steady; supply adequate; flour $9.85, 20 ton cars, sacked; meal $10.20, 20 ton cars, sacked; both unchanged.

Ft. Worth: Demand normal; trend steady; supply sufficient; $7.50, sacked, f.o.b. north Texas, unchanged.

Cincinnati: Demand fair; trend steady; supply adequate; $7@7.50 cwt., unchanged.

Seattle: Demand and trend steady; supply good; $14, ex-warehouse, sacked.

Denver: Demand fair; trend steady; supply ample; $12.50, car loads, unchanged.

COCONUT OIL MEAL

Los Angeles: Demand slow; trend steady; supply adequate; copra cake $63@64, unchanged.

Portland: Demand slow; supply adequate; trend unchanged; 20% solvent $65.20.

Seattle: Demand fair; trend steady; supply ample; solvent type $71, f.o.b. car Seattle, sacked, no change.

CONDENSED FISH SOLUBLES

Boston: Demand active; trend firm; supply nil; $55, nominal, unchanged.

Los Angeles: Demand and trend steady; supply limited; 3½¢ lb., unchanged.

Denver: Demand weak; trend steady; supply ample; 3¢ lb., f.o.b. West Coast, unchanged.

CORN OIL MEAL

Cincinnati: Demand fair; trend steady; supply adequate; $42, unchanged.

Seattle: Demand good; trend firm; supply ample; feed $52, car, up $1.

CORN GLUTEN FEED AND MEAL

(All quotations for all cities are bulk basis, sacked basis $6 more)

Minneapolis: Feed $41.70, meal $70.70.
Atlanta: Feed $45.10, meal $74.10.
Birmingham: Feed $42.90, meal $71.90.
Boston: Feed $46.60, meal $75.60.
Chicago: Feed $35, meal $64.
Cleveland: Feed $43, meal $72.
Denver: Feed $45.30, meal $74.30.
Ft. Worth: Feed $45.80, meal $72.80.
Indianapolis: Feed $40.25, meal $69.25.
Kansas City: Feed $35, meal $64.
Louisville: Feed $41.55, meal $70.55.
New York: Feed $46.20, meal $75.20.
Norfolk: Feed $45.60, meal $74.60.
Philadelphia: Feed $45.80, meal $74.80.
St. Louis: Feed $35, meal $64.

COTTONSEED OIL MEAL

Seattle: Demand good; trend steady; supply ample; 41% expeller $68, f.o.b. car Seattle, down $1.

Los Angeles: Demand slow; trend steady; supply ample; $55, unchanged.

St. Louis: Demand good; trend firm; supply ample; 41% solvent process $57, Memphis basis, up $2.50.

Memphis: Demand fair; trend steady; supply ample; prime 41% protein, old process $57, up $2; new process, 41% protein $55.50, up $1.50.

Cincinnati: Demand fair; trend higher; supply adequate; $65, up $2.50.

Kansas City: Demand good; trend strong; supply adequate; 41% solvent process $63.20, up $2; 41% old process $64.20, up $2.50.

Ft. Worth: Demand good; trend steady; offerings light for nearby delivery; 41% old process $60@61, f.o.b. mills Ft. Worth, unchanged to $1 higher; loose hulls $15@16, up $1@3; solvent with 2% fat added $62.60, up $2.60; dry $61.60, up $2.60.

Portland: Demand fair; trend steady; supply adequate; 41% solvent $68.20.

Buffalo: Demand fair to poor; trend steady; supply fair; $76.40, sacked, Boston, unchanged.

Atlanta: Demand good; trend steady; supply limited; 41% $63, North Carolina, South Carolina and Georgia, up $1; $58 North Alabama, unchanged; $57 Mississippi, up $2; $57, Tennessee, unchanged.

Denver: Demand fair; trend steady; supply ample; $63.50, up $2.50.

CURACAO PHOSPHATE

New York: Minimum 14% phosphorus $43.50 sacked, $40.50 bulk, f.o.b. New Orleans, Jacksonville and Philadelphia.

DEFLUORINATED PHOSPHATE

Coronet, Fla.: Minimum phosphorus 18%, minimum calcium 31%, maximum calcium 34%, maximum fluorine .18%; guaranteed uniform analysis; carload $61.25, sacked, 100 lb. multiwall bags, bulk $58.25; truck load $62, sacked, in 100 lb. multiwall bags, bulk $59, f.o.b. Coronet, Fla.

Tupelo, Miss.: Minimum phosphorus 14%, minimum calcium 28%, maximum fluorine .14% $52, f.o.b. Tupelo in 100 lb. multiwall bags, $49 bulk.

Wales, Tenn.: Minimum phosphorus 18%, minimum calcium 33%, maximum 36%, maximum fluorine .18% $66 (or $3.67 per unit of P), f.o.b. Wales in 100 lb. multiwall bags, $3 less in bulk.

Butte, Mont.: Minimum phosphorus 18%, minimum calcium 32%, maximum calcium 36%, minimum fluorine .18% $81 (or $4.50 per unit of P), f.o.b. Butte, 100 lb. multiwall bags; bulk $78; truck lots of less than 10 tons $10 more, bagged or bulk.

Houston: Minimum phosphorus 19%, minimum calcium 32%, maximum calcium 35%, maximum fluorine .19% $69.35 net ton, f.o.b. Houston, 100 lb. multiwall bags; $66.35 bulk ($3.65 per unit of P).

Port Arthur, Texas: Minimum phosphorus 18%, minimum calcium 31%, maximum calcium 34%, maximum fluorine .18%; guaranteed uniform analysis; carload and truck load $65.75, sacked, 100 lb. multiwall bags; bulk $62.75, f.o.b. Port Arthur.

Ft. Worth: Demand good; trend steady; supply adequate; minimum 18% phosphorus, maximum 34% calcium, maximum .18% fluorine $73.45, sacked, unchanged.

Cincinnati: 18% phosphorus, carlots $74.30, ton lots $84.30; 14% phosphorus, carlots $62.50, ton lots $72.50, Cincinnati, unchanged.

DICALCIUM PHOSPHATE

Chicago: Bulk, carlots and truck loads, 18½% phosphate $78 and 21% phosphate $89; packed in 100 lb. papers, 10 tons or more, 18½% phosphate $81 and 21% $92; lesser quantities, 18½% phosphate $91 and 21% $102; above prices per ton, f.o.b. Chicago Heights, Ill., or Nashville, Tenn.

Bonnie, Fla.: Minimum phosphorus 18½%, granular, $81 (or $4.38 unit of P), freight equalized from nearest producing point, carload basis; bulk or sacked $3 less; in truck loads of less than 10 tons, $10 more. Western slope prices, for delivery at established railroad stations and by truck at regular feed mixing plants: California, Arizona, Nevada and Utah, $99.90; Washington, Oregon, Montana and Idaho, $107.15; bulk carloads $3 less; truck loads less than 10 tons, $10 more.

Columbia, Tenn.: Minimum phosphorus 18.5%, minimum calcium 24% $81, f.o.b. Columbia, in 100 lb. multiwall bags; freight equalized with nearest producing point, carload basis; bulk $3 ton less.

Texas City, Texas: Minimum phosphorus 18.5%, minimum calcium 20%, maximum calcium 23%, maximum fluorine .12%; carload and truck load $75.50, sacked, in 100 lb. multiwall bags, bulk $73.50, f.o.b. Texas City.

Trenton, Mich.: 18½% phosphorus and 23% calcium, bulk boxcar/hopper car $78; bagged $81; 21% phosphorus product production discontinued.

Los Angeles: Demand and trend steady; supply adequate; 18½% phosphorus $95.10, sacked, unchanged.

Ft. Worth: Demand fair; trend steady; supply adequate; $81.50, sacked, unchanged.

Cincinnati: 18½% phosphorus $88.80, bagged in carloads; $98.70, bagged in ton lots, f.o.b. Cincinnati; $81, f.o.b. production points, unchanged.

Seattle: Demand good; trend steady; supply limited; $91, ex-dock Seattle, sacked, unchanged.

Buffalo: Demand and supply good; trend steady; $82.90, sacked, Boston, unchanged.

Denver: Demand good; trend steady; supply ample; $88.50, car loads, delivered, unchanged.

DISTILLERS DRIED GRAINS

Boston: Demand and trend steady; supply steady; dark $51, unchanged.

Cincinnati: Demand fair; trend steady; supply adequate; $44@47, down $1.

Buffalo: Demand fair to good; trend steady; supply good; $51, Boston, unchanged.

DRIED BEET PULP

Los Angeles: Demand steady; trend firmer; supply adequate; milk shed $48.50@48.70, up $1.50@1.70.

Boston: Demand fair; trend about steady; supply adequate; $53.50, sacked, off 50¢.

Ft. Worth: Demand slow; supply sufficient; plain $55, sacked, November-December, unchanged.

Seattle: Demand fair; trend steady; supply ample; $48, delivered carlots, sacked, unchanged.

Buffalo: Demand and supply fair; trend steady; $53.50, sacked, Boston, unchanged.

Portland: Demand good; trend steady; supply adequate; $47.58, sacked.

Atlanta: Demand fair; trend steady; supply good; $53.40 sacked, delivered, unchanged.

Denver: Demand good; trend steady; supply ample; $80, unchanged.

DRIED BUTTERMILK

Boston: Demand and supply fair; trend steady; 14¢ lb., unchanged.

Los Angeles: Demand and trend steady; supply adequate; 14@14¼¢ lb., sacked, unchanged.

Buffalo: Demand fair; trend steady; supply adequate; $10.75 cwt., f.o.b. Buffalo, unchanged.

Chicago: Demand fair; trend steady; supply ample; medium acid $10.25@10.50 cwt., sacked; sweet cream $10.25@10.50 cwt., sacked.

DRIED CITRUS PULP

Boston: Demand and trend steady; supply in balance; $50.17, sacked, unchanged.

Los Angeles: Demand and trend steady; supply limited; orange pulp $43, lemon pulp $41, both unchanged.

Buffalo: Demand fair to poor; trend steady; supply fair; $32.50, sacked, f.o.b. Florida points, unchanged.

Atlanta: Demand best; trend steady; supply good; pulp, $32.50 sacked, f.o.b. Florida processing plants; meal $27.50@30 sacked, f.o.b. Florida processing plants; unchanged.

DRIED SKIM MILK

Chicago: Demand good; trend firm; supply moderate; $12.50@13 cwt., sacked.

Cincinnati: Demand fair; trend steady; supply adequate; 12@13¢ lb., sacked, unchanged.

Boston: Demand and trend steady; supply steady; 13½¢ lb., unchanged.

Los Angeles: Demand fair; trend steady; supply adequate; 14¢ lb., less than ton lots, sacked; 13¾¢ lb., ton lots, sacked; both unchanged.

Ft. Worth: Demand slow; trend steady; supply sufficient; $16.50 cwt., sacked, unchanged.

Buffalo: Demand fair; trend steady; supply adequate; spray $11.85 cwt., f.o.b. Buffalo, unchanged.

DRIED WHEY

Chicago: Demand slow; trend firm; supply fair; $4.75 cwt., sacked.

Los Angeles: Demand fair; trend steady; supply adequate; $5.10 cwt., carloads; $5.25 cwt., l.c.l.; both sacked and unchanged.

Ft. Worth: Demand fair; trend steady; supply adequate; standard $4.75, sacked, truck or rail, delivered Ft. Worth; small lots $5.25, f.o.b. warehouse Ft. Worth, unchanged.

Cincinnati: Demand fair; trend steady; supply adequate; $5.75 cwt., sacked, unchanged.

Boston: Demand and trend steady; supply steady; 4.85¢ lb., carlots, unchanged.

Kansas City: Demand good; trend steady; supply ample; $4.50 cwt., sacked, unchanged.

Seattle: Demand steady; trend easy; supply good; $5.70 cwt., ex-warehouse, l.c.l., unchanged.

FEATHER MEAL (HYDROLYZED)

Ft. Worth: Demand fair; trend steady; supply sufficient; exporters taking production of some plants; 85% protein $30@32.50, delivered Ft. Worth, unchanged.

Boston: Demand fair; trend unsettled; supply ample; $92@95, unchanged.

Los Angeles: Demand good; trend steady; supply adequate; $1 a unit of protein, sacked, unchanged.

Memphis: Demand slow; supply adequate; trend steady; 85% meal $82.50, bulk, up $1.50.

FISH MEAL

Boston: Demand active; trend firm; supply tight; white fish meal 60% $117, nominal; red fish meal $113, nominal; both unchanged.

Los Angeles: Demand fair; supply very tight; trend firm; local production 60% protein $1.80@1.82½ unit, unchanged.

Ft. Worth: Demand slow on Peruvian, good on Menhaden trend steady; offerings limited on Menhaden, sufficient on Peruvian; sacked 65% protein, Peruvian $118@119, unchanged to $1 lower; 60% new crop Menhaden $126, unchanged.

Cincinnati: Demand fair; trend steady; supply adequate; $113.11, unchanged.

Buffalo: Demand light; trend steady; supply unavailable; 60% protein, Menhaden $130 ton, bulk, f.o.b. Buffalo, unchanged.

Chicago: Demand very good; supplies at Gulf are hard to get; trend slightly easier at East Coast; Menhaden, East Coast $117@120, Gulf $118@120; scrap, East Coast $113@116, Gulf $114@116; Canadian herring $1.85@1.95 a unit of protein.

Seattle: Demand and supply fair; trend steady; Canadian production $1.85 unit protein, f.o.b. truck, Vancouver, B.C. sacked, unchanged.

Portland: Demand slow; trend steady; supply tight; $2.05 protein unit, sacked.

HOMINY FEED

Cincinnati: Demand fair; trend higher; supply adequate; $42, up $2.

Memphis: Demand poor; trend weak; supply ample; white, $42.80, up $2; yellow $42.80, up $2.

Los Angeles: Demand good; trend very firm; supply very tight; hominy meal $52, hominy pellets $54, both up $2.

Boston: Demand good; trend firm; supply fair; $51.50, up $2.50.

St. Louis: Demand fair; trend steady;

(Turn to QUOTES, page 94)

Major Markets Roundup

Soybean Meal Movements Featured Again

Once again the movements of soybean meal's price were the feature of the ingredient market. The sensitive protein product advanced as much as $6 ton in some markets this week, while it just held steady in others. The 50% protein meal was stronger than the 44%.

U.S. Department of Agriculture average national figures for the week ended Oct. 31 showed soybean meal up $3.55 (see table).

Feed grains were on the weaker side.

Also showing strength for the USDA reporting period were the wheat millfeeds. The index for all feedstuffs was up 2.2 for the period ended Oct. 31.

East

BOSTON: Wheat millfeed and oilseed meals were firm features in the local millfeed market.

Soybean meals experienced the maximum advance soaring $4 to $6 a ton. Bran advanced $2.50, while middlings finished $1.50 net higher for the week. Hominy feed was also in active demand and responded with a $2.50 rise.

Alfalfa meal and brewers dried grains tended lower, the former yielding $1, while the latter dipped over $1.

BUFFALO: Soybean oil meal supplies eased a little, but the market held firm and prices worked $3 higher. Meat scraps rose $5 in sympathy with the soybean advance and on reports of some exports on the Seaboard. Ingredients, as a whole, were steady in a slow market.

Corn declined 3¢ on increased supplies; oats were off 1 to 1½¢ and feed wheat and barley were unchanged. Animal tallow was unchanged to ⅛¢ lb. higher. Linseed oil meal was active and up 50¢. Hominy advanced $2.

Millfeeds were mixed, with bran unchanged; middlings were off 50¢ and red dog up $2.50.

Feeds: Average Bulk Prices and Index of Weighted Prices*

(Dollars per ton)

	Oct. 31, 1961	Oct. 24, 1961	Change from previous week
OILSEED MEALS			
Prices at prin. mkts.:			
Soybean meal	69.60	66.05	+3.55
Cottonseed meal	60.95	59.15	+1.80
Linseed meal	65.60	65.20	+ .40
Copra cake or meal	58.75	58.75	...
Peanut meal	62.00	63.00	—1.00
Index	87.1	83.5	+3.6
ANIMAL PROTEIN FEEDS			
Prices at prin. mkts.:			
Meat meal	80.60	78.75	+1.85
Tankage	88.50	88.50	...
Fish meal	113.85	113.85	...
Index	77.2	76.3	+ .9
GRAIN HIGH-PROTEIN FEEDS			
Prices at prin. mkts.:			
Gluten feed and meal	44.85	44.85	...
Dist. dried grains	46.95	45.20	+1.75
Brewers dried grains	43.05	42.75	+ .30
Index	69.9	69.2	+ .7
WHEAT MILLFEEDS			
Prices at prin. mkts.:			
Bran	41.25	40.25	+1.00
Midds. and shorts	42.45	41.25	+1.20
Index	75.6	73.7	+1.9
OTHER MILLFEEDS			
Prices at prin. mkts.:			
Hominy feed	43.45	42.35	+1.10
Rice bran	32.50	32.50	...
Index	67.1	65.7	+1.4
ALFALFA MEAL			
Prices at prin. mkts.	48.15	48.40	— .25
Index	92.7	93.2	— .5
MOLASSES, FEEDING			
Prices at prin. mkts.	26.58	27.07	— .49
Index	79.1	80.6	—1.5
ALL FEEDSTUFFS			
Index	80.9	78.7	+2.2
FEED GRAINS			
Prices at prin. mkts.:			
Corn	38.60	39.80	—1.20
Oats	44.00	44.30	— .30
Barley	47.30	47.10	+ .20
Grain sorghums	38.10	38.40	— .30
Index	63.4	65.0	—1.6

*Base period of index is 1947-49.
Source: USDA.

Midwest

MINNEAPOLIS-ST. PAUL: Ingredient trading was slower here this week reflecting a sluggishness about the feed business. Soybean meal was steady to $1 higher here, the 44% protein being steady at $54 and the 50% being up $1 to $62.

The price of linseed meal dropped off 50¢. The 34% solvent was pegged at $56 and the 32% expeller at $61.

Millfeeds were off $1 under a diminished demand.

Meat and bone meal was steady to $1 higher and tankage declined $1. Animal fat was weaker and moved at 5½¢ lb., down ⅛¢, due to lack of export interest.

In screenings, the unground Canadians were up $1 to $19 under pressure of tight supplies.

CHICAGO: While there has been a modest letdown in the momentum of the advance in prices for spot soybean meal this week as compared with the three just preceding, nevertheless, prices have been boosted another $2 to $3.50 per ton.

There was this difference, too . . . it was the high protein category that showed the most rally with prices for 50% protein up as much as $3.50 per ton. vs. $2 for the 44%, thereby rewidening the spread between the two. Apparently, the further recovery has been due more to tightening up in the matter of supplies rather than in the appearance of any broadening tendency in the demand.

While everyone expects that crushing operations will have picked up naturally during October, and in all probability will continue to do so, there is a feeling that figures on stocks of meal in processor hands the end of the past month will not show the usual October pickup when the crush report comes out about Nov. 20.

In the meal futures market, trade was again of broad proportions with a total of 7,441 lots of 100 tons each traded in during the week . . . a healthy figure. From a price standpoint, while the spot mart was advancing, there was a moderate setback in the prices for the meal futures . . . nothing significant other than the fact that the situation in which the spot article has been moving at substantial premiums over the futures has been further aggravated.

ST. LOUIS: Feed ingredient prices were firm to moderately higher in this weeks trading. Buying interest was active with spot or nearby shipment usually required, which was taken as an indication that ingredient pipelines were being drained out. Formula feed outgo was showing further seasonal improvement.

Soybean meal was the leader in the price parade again. Immediate shipment meal was scarce and $5 higher. Cottonseed meal followed along with a $2.50 upturn. Meat scraps moved up $1 too, with the advance attributed to stronger raw material costs.

Alfalfa meal held steady but sellers indicated a $2 increase was in prospect for later in the week. Storage stocks appeared ample for all requirements. Brewers grains also held unchanged with the heavy output of distillers grains still keeping a lid on prices.

CINCINNATI: Supplies were adequate to meet the greater volume of business in the feed ingredient market this week.

Soybean oil meal advanced $5 to $5.50. Meat and bone scraps were up $5; cottonseed oil meal and tankage rose $2.50, and middlings and hominy feed advanced $2. Bran and linseed oil meal were up by $1.

On the lower side were: Screenings, $1 to $3; distillers dried grains, $1, and molasses, ¼¢.

South

MEMPHIS: Prices of ingredients were generally to the upside on the Memphis market, with demand slow to fair.

Mixed feed business has been approximately the same for several weeks. The market has seen a little pickup in soybean oil meal, although one broker indicated this seems to be fading somewhat. He said the market was in strong hands, not inclined to cut prices.

For the present, Memphis production soybean oil meal is in a rather tight position, with considerable export business being filled. Most business was for nearby positions, and buyers still were reluctant to book deferred shipments.

Cottonseed oil meal demand picked up considerably the past 10 days, and most of the trade reported active inquiry. Mills seem to have nearby tonnage fairly well sold-up and the market appears firm.

Millfeeds maintained a strong position, but beginning Oct. 30 a definite weak tone developed. Some prices dipped $2 per ton on bulk feeds.

Oilseed meal futures wound up irregularly Oct. 31 on the Memphis Board of Trade, compared with one week earlier.

Bulk solvent cottonseed oil meal, influenced by the strong cash situation, closed $1 to $2.50 per ton higher, paced by December. Unrestricted soybean oil meal was 25¢ lower to 25¢ higher.

Trading volume for the period amounted to 3,200 tons of unrestricted oil meal.

Southwest

FT. WORTH: More ingredient prices advanced than declined this week. Soybean meal was $1.50 to $5 higher, depending on point of origin and time of shipment, and still tight for nearby delivery.

Offerings of cottonseed meal were also light for immediate, and prices unchanged to $1 higher on old process and $2.60 up on solvent. Also advancing were: Cottonseed hulls, $1 to $3; brewers grains, $3; reground oatfeed, $2.60, and linseed oilmeal, $1.

About the only declines were: Prime tallow, ¼¢, and blackstrap molasses, ¼¢ gal. Bulk bran, shorts and midds. were off $1.50 to $2, but sacked millfeed was about unchanged.

Demand was only fair except for the high protein ingredients on which offerings were light.

West

SEATTLE: Soybean oil meal leaped forward some $4 per ton and then settled back for an increase of $2 per ton. It closed at $79.60. The advance was attributed mainly to a strong European export demand.

Cottonseed meal strengthened $1 to $70 per ton, bulk Seattle.

No. 2 yellow corn nose-dived about $1.50 per ton to $50, due principally to Commodity Credit Corp. selling of milo some $4 below market price. Commodity Credit milo was sold at around $44, $4 under the previous week. Barley was off 50¢, due mainly to the exporters pulling out of the market.

PORTLAND: Quotations for principal feedstuffs at Portland and other Pacific Northwest markets this week followed an irregular trend during rather slow trading.

Soybean meal listings gained as much as $1.50 a ton as the reflection of tight offerings from eastern shippers. Wheat millfeed values moved 50¢ a ton higher on tight offerings. Sacked feed gained $1 a ton over the general $4 premium to close at $5 additional.

Animal protein feed quotes were barely unchanged to weaker with meat meal prices slipping $1 a ton lower.

Prices for the various feed grains dropped from 50¢ to as much as $4 a ton.

Pacific Northwest alfalfa hay listings held unchanged at levels that are generally $2 to $3 a ton below those of one year ago. Supplies are generally plentiful as the reflection of generally good crops of all hay.

Other Reports

DEHYDRATED ALFALFA MEAL: September production of dehydrated alfalfa meal totaled 182,600 tons, according to preliminary figures of the U.S. Department of Agriculture.

The USDA figures show production for the May-September period to be 1,118,600 tons, up 54,200 from the same period of 1960. American Dehydrators Assn. says that producers "appear to be well on the way to a total annual production of 1,250,000 tons."

ADA says that some major producers intimate that while production figures show an increase, quality has suffered to some extent, but adds, "Presumably some of the current stocks are not blendable to the desired grades. The lower grades forming the unblendable portion will have to wait in storage until high grade spring production comes on the market. This is not an unusual situation though it may be a little more prevalent among storers of the product this year than in previous years."

It is pointed out that USDA figures show stocks Sept. 30 were 597,000 tons, just 48,700 greater than a year ago or 6.8% more despite a production increase of 8.9%.

FISH MEAL: U.S. production of fish meal for September was 30,961 short tons and fish solubles production was 10,019 short tons, according to preliminary data from the Bureau of Commercial Fisheries, U.S. Department of the Interior.

January-September production of meal is 251,459 short tons, compared with 216,425 for the same period a year ago, the data indicated. Solubles production was 90,188 for the period, compared with 72,743 for a year before.

The Department of the Interior said that during August a total of 57,000 tons of fish meal and scrap was produced by U.S. firms reporting their production to the Bureau of Commercial Fisheries. Compared with August, 1960, this was an in-

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crease of 4,300 tons or 8% in meal and scrap production.

A total of 16,900 tons of fish solubles was produced in August, 2,400 tons above the same month last year. The department said that during the first eight months of 1961 meal and scrap production amounted to 220,600 tons—26,000 tons above the same period of 1960.

It was reported that fish meal and scrap imports during the first seven months of 1961 totaled 126,200 tons, a gain of 46,700 tons compared with the 1960 seven-month total.

MOLASSES: Puerto Rican shipments of blackstrap molasses to the U.S. mainland in June amounted to 3.7 million gallons compared to 10 million in May and 1.7 million in June last year, according to the U.S. Department of Agriculture. USDA said this brings total shipments from Puerto Rico during the first six months of 1961 to 22.7 million gallons, or about double the 11.6 shipped in the first half of 1960.

The department noted that corn molasses (hydrol) shipments in August totaled 1.7 million gallons compared to the 1.6 million in July and 2.2 million in August of last year. This brings shipments to 15.6 million gallons for the January-August period, slightly higher than the 15.1 million shipped in the same months a year earlier.

Hawaiian cane blackstrap production in September was 25% less than August but 33% more than in September last year. Cumulative production during the first nine months of 1961 is 12% above the same months a year earlier.

QUOTES

(Continued from page 92)

supply ample; yellow $40, unchanged.

Kansas City: Demand fair; trend strong; supply scarce; yellow hominy $35.50@36, unchanged to 50¢ higher.

Chicago: Demand good; trend up $2@3; supply moderate; $42@43.

Seattle: Demand fair; trend firm; supply limited; $51, delivered, carlots, up $1.

Buffalo: Demand fair to good; supply fair; trend higher; $51.50, Boston, up $2.

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LINSEED MEAL

Chicago: Demand good; trend steady to 50¢ up; supply light; Minneapolis basis, solvent $56.50, expeller $61.

Portland: Demand dull; trend unchanged; supply adequate; 34% solvent $87.60.

Boston: Demand good; trend firm; supply light; 34% $80, up $1.80.

Cincinnati: Demand poor; trend steady; supply adequate; new process $57.50, old process $62.50, Minneapolis, up $1.

Los Angeles: Demand slow; trend steady; supply adequate; local production 31% protein $71, unchanged.

Ft. Worth: Demand slow; trend steady; supply sufficient; 34% protein, extracted $72.40, November, up $1.

Seattle: Demand fair; trend steady; none available; 34% protein (Montana) $89, delivered, car loads, sacked, unchanged.

Buffalo: Demand and supply fair; trend steady to higher; $56.50, Minneapolis, up 50¢.

MEAT AND BONE MEAL

Chicago: Demand fair; trend steady; supply ample; 50% protein $85, sacked.

Buffalo: Demand good; trend steady; supply very tight; 50% meat scraps $80 ton, bulk, f.o.b. Buffalo, up $5.

Boston: Demand, trend and supply steady; $1.10 protein unit, converted 50% $77, both unchanged.

Cincinnati: Demand good; trend strong; supply fair; 50% meat and bone scraps $78.50, Cincinnati, up $5.

St. Louis: Demand good; trend firm; supply adequate; 50% $80, up $1.

Ft. Worth: Demand good; trend steady; supply sufficient; meat and bone $75 bulk, $77.50 sacked, f.o.b. Ft. Worth, unchanged.

Memphis: Demand slow; trend steady to higher; supply adequate; 50% protein $80, without billing, up $2; 50% protein $82.50, with rail transit, up $1.50.

Kansas City: Demand slow; supply ample; trend weaker; 50% scraps $77.50, down $7.50.

Los Angeles: Demand and trend steady; supply heavier; 50% protein $1.75 unit, unchanged.

Seattle: Demand good; trend steady; supply ample; $1.65 unit protein, ex-processing plant, sacked, no change.

Portland: Demand slow; trend weak; supply ample; 50% protein $80, sacked.

MEXICAN PHOSPHATE

Brownsville, Texas: Mexican natural ground rock; 13% phosphorus $39 sacked, bulk $2 less.

MILLFEED

Cincinnati: Demand fair; trend higher; supply adequate; bran $43, up $1; middlings $46, up $2.

Memphis: Demand fair; trend weak; supply ample; wheat bran $41.80, up $1; gray shorts $42.80, unchanged; standard midds. $41.80, unchanged.

Kansas City: Demand fair; trend steady to weaker; supply ample; sacked bran $37.50@38, unchanged; sacked shorts $39.50@40; bulk bran $33.50@34, down $1.50; bulk shorts $34@34.50, down $2.50; bulk middlings $33.50@34, down $2.

Boston: Demand active; trend firm; supply spotty; bran $51.10, up $2.50; middlings $51.10, up $1.50.

St. Louis: Demand good; trend firm; supply ample; sacked bran $43, up 50¢; sacked shorts $45, up 75¢; bulk bran $38, down $1; bulk middlings $39.50, unchanged.

Los Angeles: Standard millrun $44.50@45, fair demand, firmer trend, adequate supplies, up 50¢; red bran $50.50@51, slow demand, slightly firmer, adequate supplies, unchanged to 50¢ higher.

Ft. Worth: Demand good; trend steady; offerings light for immediate; bran, bulk $41.50, burlaps $46; gray shorts, bulk $43.50, burlaps $48; midds., bulk $43, delivered Texas common points; bulk bran, down $2, sacked bran unchanged; bulk shorts down $1.50, sacked shorts down 50¢, midds. down $1.50.

Portland: Demand fair; trend firmer; supply tight; $38.50 sacked.

Chicago: Demand and supply fair; trend irregular; standard bran $37.50, off $1; standard middlings $38.50@39, off $1; red dog $43, up $2.

Minneapolis: Demand fair; supply adequate; sacked bran off $1 to $37; sacked middlings off $1 to $38; sacked red dog off $1 to $43.

Denver: Demand good; trend steady; supply ample; shorts $43.25, bran $41.25, millrun $42.25.

Seattle: Demand and supply good; trend firm; $37, delivered, common transit points, carlots, up $1.

Buffalo: Demand and supply fair to good; trend irregular; bulk bran $40, unchanged; bulk middlings $41.50, off 50¢; bulk red dog $46.50, up $2.50; all prices f.o.b. Buffalo.

MOLASSES

St. Louis: Demand fair; trend easy; supply ample; blackstrap 12½¢ gal., tank cars, New Orleans, down ¼¢.

Boston: Demand and supply steady; trend steady; 16½¢ gal., tank cars, unchanged.

Cincinnati: Demand fair; trend steady; supply adequate; 13¢, New Orleans, down ¼¢.

Minneapolis: Prices unchanged at $35 for blackstrap, tank truck, delivered Twin Cities; $31 for beet; $32 for blend.

Atlanta: Demand good; trend steady; supply limited; citrus $26, f.o.b. Florida processing plants, unchanged.

Denver: Demand fair; trend steady; supply ample; $32.70, tank car, unchanged.

Los Angeles: Demand good; trend steady; supply ample; $24.50, f.o.b. tank cars; $24.75, f.o.b. tank trucks; both unchanged.

Ft. Worth: Demand fair; trend steady; supply sufficient; blackstrap 13¾¢ gal., f.o.b. Houston; truck $30.21, delivered Ft. Worth; seller's market price on date of shipment; down ¼¢.

Kansas City: Demand slow; trend steady; supply ample; 12½¢ gal., New Orleans, unchanged.

Memphis: Demand fair; trend weak; supply ample; blackstrap 13¢ gal., tank cars, f.o.b. New Orleans, down ¼¢; $28.46, delivered Memphis, truck, unchanged.

Seattle: Demand fair; trend firm; supply good; $25.75, f.o.b. Seattle, tank truck lots, down $2.

Buffalo: Demand fair to good; supply adequate; trend steady; 16½¢ gal., f.o.b. Albany, unchanged.

OAT PRODUCTS

Chicago: Demand quiet; trend steady; supply fair; reground oat feed $11; No. 1 fine ground feeding oatmeal $72; feeding rolled oats $74@78.

Ft. Worth: Demand slow; trend steady; supply sufficient; 10% protein oat millfeed $41 sacked, unchanged; reground $23.40, up $2.60.

Minneapolis: Demand slower; supplies adequate; trend steady to $1 lower; sacked feeding rolled off $1 to $32; sacked feeding oatmeal steady at $68; sacked crimped off $1 to $61; sacked pulverized steady at $46; sacked oat feed steady at $20.

Boston: Demand and supply good; trend steady; white pulverized $54.60 sacked; reground oat feed $24.10 sacked, both unchanged.

Cincinnati: Demand poor; trend steady; supply adequate; pulverized white oats $44@47.

St. Louis: Demand fair; trend firm; supply adequate; white pulverized $43, unchanged; reground oat feed $13.50, up $1.

Kansas City: Demand fair; trend steady; supply adequate; oat mill byproduct $15.50@16, unchanged to 50¢ higher; feeding rolled oats $74@75, unchanged.

Seattle: Demand fair; trend steady; supply good; 38 lb. or better $51, delivered truck lots, unchanged.

Buffalo: Demand and supply fair; trend steady to higher; $25.60 sacked, Boston, up $1.

PEANUT OIL MEAL

Atlanta: Demand good; trend steady; supply short; 45% $62, f.o.b. Alabama producing mills for solvent process, up $3.

Los Angeles: Nothing available for quotations.

POULTRY BY-PRODUCTS

Los Angeles: Demand good; trend steady; supply adequate; $1.55 unit of protein, sacked, unchanged.

Ft. Worth: Demand good; supply scarce; $87.50@90, sacked, f.o.b. Texas plants, unchanged.

Boston: Demand fair; trend steadier; supply good; $85, unchanged.

Atlanta: Demand good; trend stronger; supply short; meat meal $75, f.o.b. Alabama and Georgia production points, up $1.50.

Memphis: Demand slow; trend steady; supply adequate; 55% meal $80 sacked, nominal, up $2.50.

RICE BY-PRODUCTS

Atlanta: Demand fair; trend steady; supply short; bran $44.50 sacked, delivered, unchanged.

Ft. Worth: Demand fair; trend setady; limited offerings standard rice bran, sufficient on solvent; standard rice bran $37 sacked, f.o.b. Houston; solvent rice bran $30.50 bulk, $34.50 sacked, f.o.b. Texas rice mill, unchanged.

Los Angeles: Demand slow; trend firm; supply very limited; California production high fat content bran $53 sacked, unchanged.

Buffalo: Demand only fair; supply adequate; trend steady; $56 sacked, f.o.b. Buffalo, unchanged.

SCREENINGS

Chicago Demand quiet; trend steady; supply fair; ground grain $20.50, Canadian $24.

Minneapolis: Demand slow; supplies adequate; trend higher on Canadian and unchanged on domestic; unground Canadian $19, up $1; domestic lights $3@10; domestic mediums $12@20; domestic heavies $20@28; 15% flax screenings $40.

Los Angeles: Demand slow; trend steady; supply adequate; barley $35 sacked, unchanged.

Cincinnati: Demand fair; trend lower; supply adequate; unground grain screenings $18.75@20.75, down $1@3.

Buffalo: Demand and supply fair; trend steady to higher; ground $33.50 sacked, New York, lake and rail, up 50¢; unground bulk $27.50, New York, unchanged.

SOFT PHOSPHATE

(Sacked, delivered)

Atlanta: $20.25.
Buffalo: $25.50.
Chicago: $24.96.
Cincinnati: $23.64.
Des Moines: $25.42.
Kansas City: $25.07.
Memphis: $22.28.
Minneapolis: $26.12.
Philadelphia: $24.51.
St. Louis: $24.33.

SOYBEAN OIL MEAL

Atlanta: Demand good; trend steady; supply light; 44% $68.60, delivered, up 80¢.

Minneapolis: Demand slow; supplies adequate; 44% steady at $54, Decatur; 50% $1 higher, $62; 41% expeller steady at $62.

Denver: Demand good; trend steady; supply ample; $67.20, up $5.20.

Ft. Worth: Demand fair to good; trend firm; offerings light for nearby delivery; 44% $69.40@72.50, prompt, up $1.50@4.50; $69.40 November-December, up $3.50@4.50; 50% $74.50@77.50, prompt, November, up $2@5; prices according to origin and time of shipment.

Cincinnati: Demand good; trend higher; supply adequate; $62@62.50, Decatur, up $5@5.50.

St. Louis: Demand good; trend firm; supply limited for nearby; 44% $63, up $5.

Los Angeles: Demand very slow; supply adequate; trend firmer; $80.10@81.10, up $1.50.

Memphis: Demand fair; trend steady; supply ample; prime 44% solvent $65 bulk, f.o.b. Memphis, up $4.

Kansas City: Demand fair; trend steady; supply adequate; 44% solvent $57@57.50, down $1.

Boston: Demand active; trend firmer; supply fair; 44% $58.50, up $4@4.50; 50% $66, up $5@6.

Portland: Demand fair; trend higher; supply tight; 44% $80.60, 50% $87.60.

Seattle: Demand fair; trend firm; supply ample; $75.60, delivered, car lots, up $1.

Buffalo: Demand fair; trend higher; supply fair to poor; $57.50, Decatur, up $3.

Chicago: Demand fair; trend higher by $2@3.50; supply very light; 44% protein, unrestricted $61.50, Decatur basis; and E.T.L. $58; 50% protein, unrestricted billing $69, and E.T.L. $63.

TANKAGE

Kansas City: Demand fair; trend steady; supply adequate; 60% digester $90@92.50, unchanged.

Cincinnati: Demand good; trend strong; supply fair; 60% digester $87.50, Cincinnati, up $2.50.

Ft. Worth: Demand fair; trend steady; supply sufficient; 60% digester $90 sacked, Ft. Worth, unchanged.

St. Paul: Demand slow; supplies fair; price $1 lower; range $88@91.

Chicago: Demand and supply fair; trend firm; 60% protein $95, sacked.

UREA FEED COMPOUND

Woodstock, Tenn.: Minimum 42% nitrogen, 262% protein equivalent; $105 bagged, $99 bulk, delivered in all states east of and including New Mexico, Colorado, Wyoming and Montana.

LaPlatte, Neb., and South Point, Ohio: Minimum 42% nitrogen, 262% protein equivalent $96, f.o.b. bagged; $90, bulk, cars or trucks; freight equalized with nearest producing point.

Pryor, Okla.: Minimum 42% nitrogen, 262% protein equivalent, $95 bagged, $91 bulk, f.o.b. Pryor, freight equalized with nearest producing point; $100 bagged, $96 bulk, delivered in cars or trucks to New Mexico, Colorado, Wyoming and all states to the East.

VEGETABLE AND ANIMAL FAT (HYDROLYZED)

Los Angeles: Demand good; trend firm; supply adequate; 5%¢ lb., unchanged.

Ft. Worth: Demand good; trend steady; supply sufficient; 5¢ lb., f.o.b. north central Texas, unchanged.

GUIDELINES

(Continued from page 1)

at market prices but not at levels below generally prevailing prices received by farmers in the fall of 1960 for the 1960 crop.

This action is in line with the policy stated by Secretary of Agriculture Orville L. Freeman on July 21, 1961, as follows:

"CCC sales policy under the 1961 feed grain program is designed to carry out these objectives: To honor the department's general understanding with cooperators that they can expect to benefit by diverting their feed grain acreage to conservation uses; to assure reasonable and stable prices to users of feed grain and consumers of livestock products; to improve farm income, and permit feed grain prices during the marketing year generally to follow patterns, relative to harvest-time prices, similar to those of recent years."

Legislation provided for paying participating producers for devoting 1961 feed grain acreage to conserving uses through payments-in-kind from grain in the CCC inventory. Provision was also made for producers to be issued cashable sight drafts and for the CCC to act as their agents in marketing the payment-in-kind grain. CCC-owned feed grains are being sold against these certificates.

USDA also stated that until further notice, all CCC domestic dispositions of corn and grain sorghum for unrestricted use will be in redemption of certificates represented by payments under the 1961 feed grain program.

NO CHANGE

(Continued from page 1)

servation comes from the top man running USDA economic policies.

The informant said USDA does not intend to permit the country price of corn through the current harvest and early winter to rise above the national average price support of $1.06 bu. which prevailed under the old Benson price support program. This means that USDA will sell corn to maintain that ceiling on that commodity. Other feed grain prices will be maintained as far as possible to reflect the corn price contemplated. The corn price ceiling will prevail through December after which time USDA plans a gradual advance of corn prices probably reaching a maximum by August of $1.25 bu. national average price.

It was explained also that USDA will continue to sell corn under the "going-out-of-condition" category and will credit such sales against the certificate pool which was developed under the 1961 feed grain program.

Under the present policies, made valid by the Congressional enactment of the feed grain program, USDA has previously announced that it planned to sell feed grains in the market place at time of harvest so that non-cooperators in that program would be penalized for failure to cut back acre-

age. And under the contemplated cutback it was feared that without the threat of CCC sales of feed grains at the market or lower that the noncooperators would obtain a windfall.

Nothing New

There is nothing new in USDA's announcement. USDA will continue to sell out-of-condition corn and credit such sales against the feed grain program. Such a condition is not necessarily any more of a market factor than it has been in the past. USDA officials have no plan or intention to take over the feed grain marketing machinery. But they do need flexibility in their activities to maintain a general market price ceiling for corn and a related price for other feed grains at the national average level of $1.06 bu., which was the Benson administration support level for corn for the 1960 crop.

This week, with the issuance of the CCC monthly sales catalog for November, USDA will state that it intends to credit out-of-condition corn sales against the certificate pool of feed grain certificates accumulated under the 1961 feed grain program.

Uncertain by Markets

Operations such as USDA now reveals will obviously be uncertain by areas and markets. USDA hopes to hold as closely to the $1.06 bu. corn line as possible, but admits that it may miss that target plus or minus as the markets adjust.

This report from top policymakers at USDA should calm the jittery feed grain markets, if all and sundry will take heed that through December USDA is aiming to hold the country price of corn at the previous national average price support level of $1 06 bu. After that time there will be a slow steady advance in USDA corn price outlook reaching a peak in August, 1962, of $1.25 bu.

VOTE —

(Continued from page 1)

Turkey Advisory Committee met to ask the U.S. Department of Agriculture to submit a work sheet under which the industry might operate on a national basis.

It must be recognized that this turkey industry group had no previous experience in this field and exposed itself to explanations from top USDA brass who are openly advocates of this method as the best way to lead the turkey industry out of the financial wilderness.

Two Points of Control

Essentially what USDA is proposing are two separate controls—one at the haatchery level where the limited number of plants make administrative control relatively simple and where USDA has long and adequate records of output of these plants, and another at the slaughter level where federal inspection has accumulated data which may be helpful in policing slaughter and provide the basis for set-aside of turkeys slaughtered in a reserve pool for future distribution.

The cost of the program for the most part would be carried by the turkey producers themselves. They would be required to contribute a per unit contribution to a reserve pool to pay the cost of the program's operation and reimburse participants to the reserve pool.

Fascinated by Outlook

Turkey producers appear to have been fascinated by the outlook, notwithstanding the fact that there has not been any deep economic examination of what can occur on a national basis and between competitive market areas or between individual producers who may have by this time built themselves a big market production base and may sense in these agreements a chance to consolidate and maintain their production leadership. It is also believed by some observers that some latecomers who may have developed more profitable techniques might reasonably claim that they can overtake the old line producers if given free play in a free market system.

The five public hearings to be held under USDA auspices (see related story) are said to provide the interested parties to make their views known. These views will be incorporated in verbatim testimony to form a record from which USDA may make a final finding and submit the proposals to a referendum vote which would probably be held in January, 1962.

AAFCO

(Continued from page 1)

tives to allow the existing definition to remain in force for at least another year.

Some of those objecting to the change said that the new definition "can cause misunderstandings between the buyer and seller" and that it "permits shipping of lower quality molasses" than under the present definition.

Other program highlights included the appearance of the feed industry's official delegate, Lee H. Boyd, director of feed control and nutrition for the American Feed Manufacturers Assn., a discussion of feed inspectors' responsibility in case of nuclear attack and a presentation of tentative feed processing definitions developed by the Feed Production School. A survey form was distributed among the control officials to learn their opinions of the definitions, and on recommendation of the AAFCO investigator for physical forms, the association adopted some definitions. (See report of official actions.)

Canadian President

C. R. Phillips, Ottawa, Canada, was elected president of the association to succeed E. A. Epps, Jr., Baton Rouge, La. R. E. Bergman, St. Paul, was elected vice president, Bruce Poundstone, Lexington, Ky., was reelected secretary and Marvin Snyder of West Virginia was named treasurer.

A total of 90 officials attended the session, along with 146 industry representatives.

The position of the Pet Food Institute in meeting labeling needs and problems was cleverly presented in the form of a slide film, to the accompaniment of some honky-tonk sounds called "music to label pet food by." The animal characters on film pointed out that "laws on labeling were written for feeds and not pet food" and that labels on these items had to be devised to catch the buyer's eye because of the huge number of products on the food market shelves. The conclusion was, "We want simple, meaningful labels."

Elmer Christensen, pet food investigator, commented that control officials are concerned with practices and trends in pet food labeling. "Imprudent use of the term 'flavor' is our biggest problem," he said. A revised labeling guide has been prepared to promote "conservative and factual labeling," he noted.

Also discussed at the states relations session was an AAFCO resolution which requires certain additional labeling on feed containing more than 5% minerals. This has the effect of putting some current poultry formulas under the mineral feed category in regard to labeling requirements, some spokesmen said. It was suggested that this limitation be raised, perhaps to 10%.

However, several control officials voiced objection to the change, also pointing out that the limit is set by law in many states, making it difficult to make a change.

A proposal made a year ago to greatly simplify all feed labeling requirements came in for some discussion, but no additional action was taken as the matter rests with an industry-AAFCO committee for further study.

Some discussion also took place on the inspector's responsibility on labeling and sampling of "customer formula feeds." One official asked, "What do you say and who do you report it to?" Another replied that samples are taken on these feeds from bulk trucks and that the analysis is reported to the consumer and to the feed manufacturer. "If the feed isn't what the customer expected, the manufacturer is very prompt about explaining it to him," he said. In Florida, it was reported, custom feeds are subject to the same labeling and guarantees as other feeds.

A suggestion was made from the floor by George Sanko, Victor Chemical Works, Chicago, that the control officials consider adopting a definition for dicalcium phosphate "which will enable the feed industry to get its money's worth."

Here are summaries of the talks given during the formal sessions (a report on Mr. Epps' talk appeared on page 7 of the Oct. 28 issue):

FEED INDUSTRY DEVELOPMENTS—"Control officials, while government officials, are really part of the total feed industry," Mr. Boyd said. He suggested that both feed manufacturers and control officials continually watch industry changes in an effort to keep regulatory work up to date.

"Nutrition research is continuously going on, with results not determined by law but by the effort of scientists to find answers," he said. "This is one of the reasons that the feed industry has worked for as much flexibility as possible in the uniform feed law."

Changes occur in ingredients, in transportation and in distribution, he noted. "What is most economical will survive."

Concerning industry and governmental relationships, Mr. Boyd observed that the kind of cooperation existing between AAFCO and industry is a fine example of "pulling together." He said he felt that some of this combined effort could be used to find a solution to some Food and Drug Administration problems which are inherent in current law.

"We must remember that feed is not manufactured for the poorest farm manager," he said. "Manufacturers are doing their best to provide good products. In the economic race with other manufacturers, this is their life blood."

RESPONSIBILITIES OF THE FEED INSPECTOR IN CASE OF NUCLEAR ATTACK OR PEACETIME INCIDENT—"It appears that the feed inspector has been overlooked for too long a time in our civil defense considerations," said J. H. McConnell, director of civil defense training of FDA. "Livestock must be fed to live, and we must have livestock whose food products constitute a valuable portion of our daily diet.

"If the feed inspector expects to carry on his work efficiently and effectively under any emergency, he must begin making plans prior to the attack. He will need all the training he can secure in the unusual weapons of war—atomic bombs and toxic chemical and biological agents."

FDA, he said, currently is conducting a five-day civil defense course for state officials, and food and feed inspectors are invited to participate.

"This is the time when you should find out where you fit into the local, state and federal emergency civil defense plans," he said.

TENTATIVE FEED PROCESSING DEFINITIONS—AAFCO members were asked to study tentative definitions of feed processing terms prepared by a sub-committee of Feed Production School, Inc., and then offer constructive criticisms and suggest possible changes or additions.

These definitions first appeared in the first edition of the Feed Production Handbook, which was published in conjunction with the 1961 Feed Production School at Kansas City. They are for terms which fall in four broad categories: (1) Feed ingredients, (2) finished feeds, (3) feeds in process and (4) processing terms. (Feedstuffs, Sept. 23.)

"We recognize that the definitions developed for some of these terms are rather broad," said Gerald A. Karstens, Feed Age, Chicago, chairman of the Feed Production School definitions committee. "This was done intentionally, however, as a starting point so that feed in process or finished feed fits one of the terms presently defined. We realize, too, that eventually, with the continuing work of the committee, it will be necessary to narrow down these definitions to be somewhat more specific.

"Gaining acceptance for the terms presently defined will take many years. Our committee has met frequently and intends to meet more frequently in order to refine, define and redefine some of the work already completed. It is going to take some time before many of the feed men overcome the habit of referring to their processed products with inconsistent terminology."

Mr. Karstens said common standard terminology is needed in the feed industry: (1) As a common ground on which some standards for processing equipment and finished feed can be based, (2) to discourage the use of trade names as standard terminology, (3) to better organize research to help improve communications in research, production and management, (4) to help the customer know what he is buying and (5) to help establish a unified approach to other common problems.

"The committee on definitions has these requests to make of you and of all people concerned with the feed industry," Mr. Karstens said. "We ask you to advise us on how to improve present terminology; to supply improved definitions; to begin using this terminology in communications, and to disseminate these definitions to people within your organizations.

. . .

"We do not feel that this is a project that can be effectively undertaken by one particular organization. But, through the combined efforts of all interested groups, a job can be done for the industry to help clarify some of the misunderstandings that develop from time to time due to a lack of accurate communications."

BROILERS

(Continued from page 1)

quantities quoted, however, 10¢ was the price.

Demand was light in Delmarva, with an unsettled undertone. It was difficult to determine values due to competition from other areas.

Demand for ready to cooks in Georgia was reported dull. Live offerings were reported by the federal-state news service as fully adequate for limited needs at most points.

Offerings of heavy type hens increased in some instances, though trading was rather light. Light types were reported scarce. Price on broiler breeder heavy types at farms was 15¢.

N.H. Poultry Assn. Head Knocks Controls

MILFORD, N.H.—J. Prentiss Weston, Bennington, president of the New Hampshire Poultry Growers Assn., warned his state's $30 million poultry industry that "outsiders would like to get control of it."

Speaking at the annual meeting of the Hillsborough County Farm Bureau here, Mr. Weston assailed the control influence in the U.S., describing it as "un-American, socialistic, uneconomic, stifling to incentive and certain to reduce poultry products consumption."

He declared, "In the case of poultry, if applied as suggested, it will put a lot of smaller growers out of business."

A resolution was passed at the convention commending the state and American Farm Bureaus for their fight against controls.

Chicks Placed in Principal Broiler Areas

(000's omitted)

Week ending	Maine	Conn.	Penn.	Ind.	Ill.	Mo.	Del.	Md.
August 26	1,211	294	665	751	69	761	1,529	2,246
September 2	1,182	319	686	693	112	744	1,580	2,085
September 9	1,240	268	736	613	57	787	1,623	1,914
September 16	1,166	256	683	658	74	643	1,518	1,945
September 23	674	249	655	521	72	639	1,407	1,918
September 30	1,126	291	625	478	57	649	1,379	1,937
October 7	1,137	253	644	494	56	573	1,355	1,667
October 14	1,058	219	600	449	46	607	1,259	1,853
October 21	953	236	432	456	18	593	1,184	1,888
October 28	1,158	257	539	455	38	571	1,514	1,907

Week ending	Va.	W. Va.	N.C.	S.C.	Ga.	Fla.	Ala.	Miss.
August 26	905	352	3,313	444	6,055	203	3,725	2,538
September 2	807	340	3,205	380	6,017	243	3,551	2,402
September 9	818	381	3,205	385	6,129	220	3,401	2,225
September 16	817	249	3,130	363	5,834	199	3,343	2,134
September 23	682	369	2,989	345	5,661	216	3,206	2,098
September 30	736	247	3,029	379	5,712	156	3,376	2,156
October 7	739	245	2,979	348	5,325	151	3,388	2,001
October 14	712	273	2,889	345	5,455	157	3,372	1,944
October 21	711	246	2,738	322	5,274	174	3,204	1,906
October 28	666	176	2,761	373	5,433	198	3,278	2,138

Week ending	Ark.	La.	Texas	Wash.	Oregon	Calif.	Total 22 areas 1961	Total 22 areas 1960
August 26	4,177	403	2,340	351	181	1,091	33,604	30,035
September 2	3,996	378	2,209	298	184	1,098	32,509	29,496
September 9	3,765	381	2,056	269	188	1,081	31,742	29,246
September 16	3,713	368	1,922	225	170	979	30,389	28,624
September 23	3,564	382	1,816	282	141	980	28,966	28,656
September 30	3,616	402	1,782	234	176	1,067	29,610	28,551
October 7	3,579	394	1,666	296	176	1,082	28,548	28,442
October 14	3,468	407	1,632	291	141	1,049	28,246	28,355
October 21	3,441	337	1,700	261	78	943	27,094	28,165
October 28	3,312	350	1,726	221	109	948	28,128	28,639

'Poultry Industry Moving to Controls'

NASHVILLE—The poultry industry is moving toward government controls, members of the Tennessee Poultry & Egg Federation were told at their ninth annual convention here.

Speaking was W. F. Moss, Tennessee commissioner of agriculture. His appearance on the program followed that of Dr. Stanton P. Parry, agricultural economist from the University of Tennessee, who explained how marketing orders work in milk and produce. He said if marketing orders are adopted by the poultry industry they will probably be on a nationwide basis rather than area-by-area as is the case with other commodities.

Officers elected by the federation members are: President, Bill Stone, Shelbyville; first vice president, Jack Harrison, Knoxville; second vice president, Blanton Smith, Jr., Nashville, and secretary-treasurer, Dr. O. E. Goff, University of Tennessee, Knoxville.

COMPETITION

(Continued from page 7)

est cost, quality considered," Oakley Ray, director of market research for the American Feed Manufacturers Assn., told the group. "It appears that southern producers are able and willing to produce and market broilers at prices below levels necessary to induce Illinois farmers to raise large quantities of broilers," he continued.

He went on to state that Corn Belt states (including Illinois) produced 43% of the total U.S. egg production in 1960, according to U.S. Department of Agriculture.

The Corn Belt is expected to continue to be an important egg producing region. The state of Illinois is favorably situated in this regard.

AFMA

(Continued from page 7)

zens be required to produce food, it is likely that our diet would be no better than the Russians', and a large segment of our industry and commerce could not exist.

"This contrast will become more vivid as human populations in all countries continue to expand. It is estimated that by 1975 the U.S. will have over 250 million people. Food requirements will increase dramatically. Livestock products, preferred by Americans for a constantly increasing share of their diet, will be needed in quantities about 40% greater than present."

Harvest of Diamonds

Under the title, "A Harvest of Diamonds," the booklet says, "America's food supply is its most precious treasure. This wealth provides the strength of a nation to win technological and idealistic battles of the century. Bountiful harvests of fresh, appetizing, nutritious foods stream to market in never-ending variety during all seasons of the year. American citizens of average means currently enjoy meals undreamed of by the wealthiest people 50 years ago. However, a realistic value is seldom placed on this 'miracle' due, in part, to the low cost of food relative to other things we buy."

Feed Industry Role

Relating the feed industry to this "mighty weapon," the booklet continues, "In less than half a century, the feed manufacturing industry has grown from a handful of 'grain and by-product mixers' to the 13th largest manufacturing industry in the U.S. . . . the largest industry in the world devoted exclusively to supplying goods and services to agriculture.

"Six thousand manufacturing plants and 25,000 dealers, employing over 100,000 people, have a total investment of nearly $2 billion with annual gross sales of nearly $4 billion. And, it is a highly competitive business."

The booklet goes on to explain and illustrate various feed industry operations and the importance of the industry in the nation's economy.

CONGRESSMAN

(Continued from page 6)

turning out 100% in favor. "Twenty-two of the 24 eligible farmers did not vote. The two who did, voted yes. I'd hardly say that amounts to overwhelming approval."

Questions and Answers

Mr. Beermann spoke "off the cuff" 45 minutes, then engaged in a question-answer session that lasted nearly as long.

In answer to a question on "pork barrel legislation," Mr. Beermann cited the public works program, Agriculture Adjustment Act of 1961 and another bill which included a provision to spend $4 million to "save the Nubian monuments. We didn't even know what they were or where they were. And you know who the bill would be charged to? Agriculture. I am against it."

Discussing production and marketing controls, Mr. Beermann recalled that most of those appearing to testify before the Agriculture Committee said they didn't want controls. "Then along came some egg and broiler people from the New Jersey association and they said they wanted controls," he added. "If they succumb to controls now, if the government helps out, the broiler industry will be done for."

Later, still on the subject of aid to the broiler industry, Mr. Beermann asserted:

"I don't mean to be rough, but the turkey people ought to borrow from the bank. I don't think the government should bail anybody out to put them in permanent slavery."

Mr. Beermann was introduced by Lloyd Larson, Kansas City, executive vice president, Midwest Feed Manufacturers Assn., which co-sponsored the meeting and Mr. Beermann's appearance.

Others who spoke briefly included Don Magdanz of Omaha, executive secretary, National Livestock Feeders Assn., and Max Mason, president of the Omaha Feed Club.

CONTROL

(Continued from page 6)

"Hydrolyzed poultry feathers is the product resulting from the treatment under pressure of clean, undecomposed feathers from slaughtered poultry, free of additives, and/or accelerators. Not less than 80% of its crude protein content shall consist of 'digestible protein.' "

NOTE: The Official AOAC Method 22.025, 9th Edition may be used to determine its digestibility.

The executive committee also recommends the adoption of the following definition as tentative:

"Dried meat solubles is the dry, granulated water extract from animal tissues exclusive of hair, hoof, horn, manure, stomach contents and blood, except in such traces as might occur unavoidably in good factory practice, especially prepared for feeding purposes by steaming or extraction with hot water, evaporation under vacuum, and dehydration by a mechanical dryer."

Barley Products

The executive committee accepts the report of the investigator and recommends adoption of a tentative definition as follows:

"Pearl Barley Byproducts is the entire byproduct resulting from the manufacture of pearl barley from clean barley."

It further recommends the adoption of the following tentative definition:

"Barley Mill Byproducts is the entire offal from the milling of barley flour from clean barley and is composed of barley hulls and barley middlings."

Brewery Products

The executive committee recommends that the report of the investigator on brewery products be referred back for further study.

Corn Products

The executive committee accepts the report of the investigator and recommends that tentative definitions T-2 and T-5 be moved to official status.

The executive committee further recommends the deletion of definition T-3.

It recommends the adoption of the following definitions as tentative:

"Heat processed corn is the product resulting from heating whole corn under pressure without removing any of the component parts. It may be ground, pelleted, or flaked."

Drugs

The executive committee accepts the report of the drug investigator and recommends that the following drugs be added to the list in paragraph T-7 under drugs and feed additives: Novobiocin, tylosin and promazine hydrochloride.

The executive committee recommends that neomycin be added to the list of "not new drugs."

Linseed and Flax Products

The executive committee accepts the report of the investigator and recommends the elimination of the word "oil" from definition 99 so as to read "linseed meal."

Mineral Feeds

The executive committee accepts the report of the investigator and recommends the following:

1. That the term "Soft Phosphate" be deleted from Sec. 139 as now listed in the 1961 official publication and adoption of the following tentative definition:

"Soft Rock Phosphate is the very finely divided byproduct (washings) obtained from mining Florida rock phosphate by the hydraulic process. It shall contain a minimum of 9.0% phosphorus and 15.0% calcium and not more than 30.0% of clay and 1.5% of fluorine."

2. The adoption of the following tentative definition:

"Trace Mineralized Salt is common salt (NaCl) which contains trace minerals recognized as essential in animal nutrition. It is usually added to a mixed feed at a 1% level and, at such level, it replaces common salt. The trace minerals, expressed as the element, and minimum amounts of each, shall be present as follows: Iodine—0.007%; Cobalt—0.01%; Manganese—0.24%; Copper — 0.02%; Iron — 0.1%; and Zinc — 0.06%."

3. That resolutions now appearing as (a), (b) and (c) in the Mineral Feed Section of the 1961 official publication be changed to read:

A. "Mineral Feed" shall mean a substance or mixture of substances intended to supply primarily mineral elements or inorganic nutrients to animals other than man. Guarantees for crude protein, crude fat and crude fiber are not required.

B. Mineral feeds, and mixed feeds containing 5% or more mineral ingredients, shall include in the guaranteed analysis the minimum and maximum percentages of calcium (Ca) and salt (NaCl) and the minimum percentages of phosphorus (P) and iodine (I), if present. The specific component shall be stated in the ingredient statement in the form used.

C. The minimum and maximum percentage guarantees for calcium and/or salt shall conform to the following: When the minimum is 5% or less, the maximum shall not exceed the minimum by more than 1 unit (example—calcium minimum 3%, maximum 4%); when the minimum is above 5% the maximum shall not exceed the minimum by more than 20% (example—calcium, minimum 10% and maximum 12%).

4. The executive committee recommends the adoption of the following tentative definition of Diammonium Phosphate:

"Diammonium Phosphate is the product resulting from the neutralization of feeding phosphoric acid with synthetic ammonia. It shall contain not less than 20.5% nitrogen and 23.0% phosphorus. It shall be used only in ruminant feeds. NOTE: This does not include diammonium phosphate made from byproduct ammonia absorbed from coke-oven gas."

Miscellaneous Products

The executive committee accepts the report of the investigator and recommends the following definition as tentative:

"Verxite is an exfoliated magnesium-aluminum-iron silicate containing not less than 98% exfoliated hydrobiotite."

Molasses

The executive committee accepts the report of the investigator and recommends that definition T-23 be changed as follows to read:

"Cane molasses is a heavy liquid byproduct of the manufacture of cane sugar. It shall contain not less than 48% total sugars expressed as invert sugar. If its moisture content exceeds 27%, its density may not be less than 79.5° Brix determined by double dilution."

Physical Form of Feeds

The executive committee accepts the report of the investigator and recommends that the following definitions of terms be established tentatively:

MEAL—A ground feed ingredient with or without other processing.

MASH—A mixture of ingredients in meal form.

SCRATCH GRAIN—Whole, cracked or coarsely cut grain.

PELLETS—An extruded meal or mash to which liquids may have been added; may be classified by size as:

Small—Up through 13/64 in. diameter

Medium—14/64 in. through 32/64 in. diameter.

Large—Over 32/64 in. diameter.

CUBES—Large pellets with approximately square cross section.

CRUMBLES—Cracked pellets.

BLOCKS—Feed compressed sufficiently to retain solid shape.

BISCUITS—Shaped and baked dough.

EXPANDED PELLETS—Meal or mash mixed with water prior to processing by heat, pressure and extrusion. Fat may be added before or after extrusion.

KIBBLED FEEDS—Cracked baked dough and/or expanded pellets.

FLAKES—An ingredient rolled or cut into flat pieces. (Solvent extracted where oil seeds are concerned.)

CRIMPED GRAIN—Grain after passing between corrugated rolls.

PELLETED-FLAKED FEED—A mixture of pellets and flakes usually with molasses to hold any loose fines.

WAFERS—A fibrous ingredient with or without other ingredients compressed into a short cylindrical shape of several inches diameter.

CAKE—The residue after removal of oil from seeds by pressure and possibly other means.

CHIPS—Small pieces cut from oil seed after solvent extraction.

Rice Products

The executive committee accepts the report of the investigator and recommends the adoption of the following definitions as tentative:

"Rice Mill Byproduct is the total offal obtained in the milling of rice. It consists of rice hulls, rice bran, rice polish and broken rice grains. Its crude fiber content shall not exceed 32.0%."

The committee recommends that definition 163, Rice Bill Byproduct as given in the 1961 Official Publication be deleted.

Soybean Products

The executive committee accepts the report of the investigator and recommends that the following tentative definitions be placed in official status:

T-24, Soybean Meal.
T-25, Solvent Extracted Soybean Meal.
T-26, Soybean Millfeed.
T-27, Soybean Millrun.
T-29, Soy Phosphatide or Soy Lecithin.

Vitamins

The committee accepts the report of the investigator and concurs in his recommendations that Resolution (b) on page 58 in the 1961 official publication shall be deleted.

It has been called to the attention of the executive committee that the wording of the T-14 and the wording of T-15 and the wording of T-16 as now appearing on page 43 of the 1961 official publication of the association should be modified to the extent of including after the word "microorganism," the following, "having established growth promoting activity."

(In addition, the executive committee and the association accepted reports from several committees without further official comment. These include the states relations, collaborative check sample, program, analytical methods for new medicated products, editorial feed labeling terminology and civil defense committees.)

MARKETS

(Continued from page 2)

Dairy and hog feeds continue in good demand, while cattle feed demand shows a slight improvement. There is also an increase in demand for turkey feeds in contrast to the slow demand of previous weeks.

Prices for poultry and eggs in the retail market remain unchanged as the demand is slow.

Mountain States

Feed business volume was good throughout the month of October, and the month ended up higher than the same month a year ago and higher than September. Business is expected to continue good as cattle come into the feedlots at a rapid clip.

Prices have been mixed, but are now on the weaker side.

Pacific Northwest

Formula feed movement was seasonally slow this week throughout Oregon, Washington and Idaho poultry, livestock and milk producing districts.

Turkey marketing is passing its peak in many areas, and broiler production is limited on a seasonal basis. The increased demand by dairy cattle and livestock feeders has failed to make up for the poultry demand cut.

Portland frying chicken prices held unchanged following the previous period's 1¢ lb. advance at the inside of the general 15 to 19¢ lb. range paid at the farm.

Northern California

Cooler weather and rains during the week started grass along the northern coastal ranges and benefited range feed in this area. Supplemental feeding of stock continues on dry ranges.

Lower feed prices prevail as the government price of milo has declined.

Demand for formula feeds appears to be somewhat improved as the volume of dairy and cattle feed increases. Feed manufacturers report operations of a normal 40-hour week. The volume of turkey feed is improved as some birds are on feed until Christmas and New Year's.

Although some mixers noted sharp cuts in their broiler feed sales and production due to cutback in placements, such reductions apparently were being offset elsewhere.

Southern California

Cooler weather helped feed sales although production schedules are relaxed now due to the large number of turkeys being marketed. Some mills formerly working two to three shifts are currently operating one to two shifts.

In general, the turkey market seems stronger by ½¢ lb. with hens selling at 18½¢ lb. and toms trading at 16½¢ lb. f.o.b. ranch. Turkey ranchers are hoping for a price increase. Several contractors and producers are suffering from large losses this season and are very conservative in their approach to next year's plans.

Feed prices continued unchanged although the government announcement stating intentions to sell corn and grain sorghums at market levels has caused most mill buyers to proceed cautiously on purchasing ingredients. This bearish attitude creates the opinion among feed dealers that feed prices will be declining.

Egg prices decreased 2 to 3¢ this week and the outlook from producers and dealers is for lower prices in the immediate future. Poultrymen are still satisfied with current returns.

Broiler prices are somewhat stronger at 14¢ lb. but this is still below production costs. Many producers and contractors feel that higher prices are in store for this industry.

Delmarva

Laying mash, dairy feed and hog feed remained steady during the week, and things are looking brighter in the broiler business.

The average price of 13.50¢ lb. for broilers last week improved the meat-feed ratio. A pound of broiler meat would buy 3 lb. of feed.

The price of broilers went up slightly, .43¢ lb. above the previous week. Feed prices weakened about a half a dollar per ton.

Apparently the Delmarva broiler industry sees better things ahead for the first of the year. Chick placements on the peninsula last week were 10% above the previous week and 4% above the corresponding week of last year. Egg settings in Delmarva were 8% above the previous week and 5% above the comparable week last year.

Feed Club to Meet

CHICAGO—The Chicago Feed Club will meet Nov. 13 at Hotel Bismarck, it has been announced by Norman R. Glass, Allied Mills, Inc., president of the club.

Dinner will be served at 7 p.m., preceded by a social hour. The meeting is the second in a row to be held on a Monday, reflecting a change from the former Friday sessions. The speaker is to be announced.

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TOP OF THE HOPPER

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September of 1961—a 100% increase. But when it came time to place the birds that would be ready for market in September the broiler market was such that the firm decided to place only enough birds to produce 150,000 birds in September.

This hypothetical example illustrates what contacts around the country in broiler and turkey growing regions seem to indicate: It is likely that some reported "cutbacks" in production are, in fact, cutbacks from what had been planned for a particular period—but not in comparison with this period in the previous year.

THE TURKEY PRICE SLUMP is having an effect on the demand for feeder pigs, which, according to recent reports, is strong in certain areas of the Corn Belt. It has been pointed out that some discouraged turkey growers have given up on the birds and have turned their turkey houses over to feeding out hogs. Such turkeymen believe they must keep these houses productive.

A FEED MAN in an established turkey area says he feels that he and others in his area are in the turkey business to stay. "Our growth has not been spectacular," he commented, "but we feel we are on a sound basis. The cries of anguish that you hear are not primarily from areas that have had a steady increase in production but from those who increased 30% or more in one year."

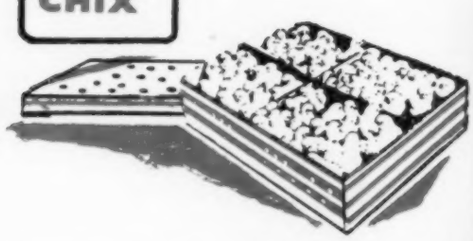
This particular firm indicated that it put out 5% more turkeys this year than in 1960. It expects a "good size" loss for the year. Next year, current plans are for 10% less turkeys than in 1961. "We reason that if markets are good, we will make some money," said the feed man. "If not, we won't lose so much. If some of our neighbors choose to continue the present suicidal course, we hope that we can survive."

It would seem that if a good many firms in the poultry business made individual decisions similar to this, the situation in 1962 could add up to a favorable one again.

HONEGGER DEALERS

PROFIT from the BIG FRANCHISE

CHIX



FARM BUILDINGS

EQUIPMENT

Franchises Available in some areas

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